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THE

CINCINNATI

MEDICAL NEWS.

EDITED BY

J. A. THACKER, A.M., M.D., F.R.M.S., LOND.

Fellow of American Academy of Medicine, etc.

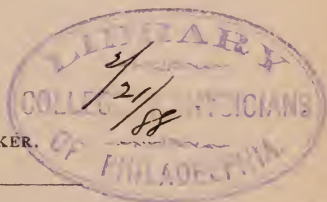
VOL. XX., Old Series.

1887.

VOL. XVI., New Series.

CINCINNATI:

PUBLISHED BY J. A. THACKER.



Printed by the Elm Street Printing Company, 176 & 178 Elm Street.

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VOL. XX. No. 229. }
Old Series.

JANUARY, 1887.

{ VOL. XVI. No. 1.
New Series.

Original Contributions.

Cancer of the Throat (Larynx)—Case with Remarks.

BY FRANCIS DOWLING, M.D., CINCINNATI.

Late of Professor Fauvel's "Throat Clinique," Paris, France.

Case.—Mr. L., age 52, residing in Southern Texas, near Galveston, came to consult me about a trouble of his throat, and gave the following history of his case. He says that about two years ago, the first he noticed of there being anything wrong with his throat, was that as night approached, he became somewhat husky in his speech, particularly so when he had smoked a good deal during the day. After this state of things had continued a few weeks he consulted a physician, who gave him a gargle to use, and under its influence the hoarseness in a measure disappeared. In about a month or so it came back again, as bad as ever. After talking for any length of time he noticed that his throat felt rough, and he also about this time began to experience some pain.

He now consulted a physician in Galveston, who told him he had "laryngitis," and treated him for six months, but with very little apparent improvement in his condition. He now discontinued treatment, except the use of a gargle; his disease, however, grew worse, he began to lose his voice at times during the day, and to hawk up a small quantity of phlegm—he had no cough, but the hawking and clearing of his throat was attended with a good deal of pain. He also commenced to lose in weight, and his appetite was quite poor; now, too, for the first time he commenced to have some difficulty in swallowing his food.

After continuing in this state for some time, he became alarmed about his condition and started North for medical treatment.

When he came to consult me he was extremely emaciated. He looked, in fact, like one in the last stage of consumption; there was complete loss of voice, he could talk only in whispers, and even that could be prolonged but for a few minutes at a time, the effort caused him so much pain. He had entirely lost his appetite, and could sleep very little at night. He had no cough, his nose was pinched-looking and his face was expressive of fear.

On examining his throat with the laryngoscope I found the whole head of the larynx very much swollen. There was an ulcer involving the base of the left side of the epiglottis and extended along the aryepiglottidean fold. The whole of one arytenoid cartilage seemed to be eaten away by the ulcer. The swelling was such as to prevent the vocal cords from being seen. The ulcer had a scooped-out appearance, with a dirty gray colored bed, from which small projections like granulations seemed to spring. The edges of the ulcer were ragged; the right side of the glottis seemed to be free from the ulcerative process. It will be well to say here that there was no history of consumption in this case, and a very careful examination of the lungs gave no evidence of any tuberculous disease of those organs.

By way of treatment I ordered the patient some Dover's powders, to be taken at night-time, for the purpose of producing sleep, and after they had produced the desired effect I prescribed the following to improve the appetite.

Quiniæ sulph.		
Ext. hyoscyami, āā,	.	℥i.
Strychniæ sulph.,	.	gr. ½.
M. ft. pill. No. xx.		
Sig.	One three times a day, before meals.	

At the end of a week or so he could sleep tolerably well without the opiate. His appetite commenced to improve a little, although he had some difficulty in swallowing, and had to eat very slowly. I ordered him some Irish porter to drink with his meals, but when he attempted to swallow it, owing to the condition of his throat, it nearly strangled him. He had to take liquid food rather sparingly, as he said it went down the wrong way and nearly choked him.

I insufflated into his larynx twice a day a powder con-

taining a quarter of a grain of morphia sulph. mixed with a little bismuth sub. nit. I also ordered four small blisters, about the size of a dime, each, to be placed on the skin over the region of the larynx. The blisters were opened and dressed with ungt. belladonna once a day until they healed up, when the blistering process was again repeated, each time changing their location. This was continued for a month with apparent good effects.

At about the end of six weeks the patient's voice had cleared up somewhat, the pain had disappeared from his throat, his appetite was much better, and he could swallow with less difficulty. As he complained that the noise about the hotel where he was stopping interfered with his sleeping, I advised him to take up his quarters in the suburbs, which he did. This seemed to cause a slight backset in his throat trouble, and after about a week he again returned to the hotel.

From this time on he continued to improve, and at the end of about three months from the time he came here, I thought it would be advisable to allow him to return to his home in Texas, especially as he was getting extremely lonesome and we were having a spell of rainy, damp weather in our city. I gave instructions to have the treatment continued at his home by the resident physician.

The above case was an extremely interesting one to me. While I can hardly expect, that with the present knowledge of the history of the results of cancer of the larynx, the improvement that took place in this case will be permanent; still, any line of treatment is a decided success that gives the patient ease and prolongs his life for a time, even if it be for only a few months. And I can reasonably expect that in this case it may be for years.

The cause of cancer of the larynx has not, as yet, been discovered. The disease in the great majority of cases occurs in advanced periods of life. Mackenzie, of London, reports 53 cases in persons of the following ages:

				CASES.
From 10 to 20 years of age,	.	.	.	1
“ 20 “ 30	“	“	.	2
“ 30 “ 40	“	“	.	6
“ 40 “ 50	“	“	.	10
“ 50 “ 60	“	“	.	18
“ 60 “ 70	“	“	.	15
“ 70 “ 80	“	“	.	1

Ziemssen reports 76 cases with about the same results in regard to age. It will be seen from the above that the most favorable age for the appearance of this disease is from 50 to 60, a point which may serve to diagnose it from consumption of the larynx, which generally develops before the thirtieth year of age, and is extremely rare in persons over 40 years of age.

A singular thing in connection with this disease is, that while women are more subject to cancerous troubles in general, men are far more prone to cancer of the larynx. Of Mackenzie's 53 cases, 42 of them occurred in males and only 11 in females. And of Ziemssen's 76 cases, 60 were males and only 16 were females. Türck reports 12 cases, 10 of which were in males; and Prof. Fauvel, of Paris, reports 44 cases, with about the same results in regard to sex.

Why it is that the disease occurs so much more frequently in man than in woman has not, as yet, been found out; probably man's habits in regard to smoking and his general irregularity of life have something to do with this. Statistics should be collected bearing on the subject.

Cancer of the larynx generally commences with a certain amount of hoarseness, pain and trouble in swallowing, just the same as we find in a case of ordinary sore throat; but these symptoms, instead of disappearing after a week or so, as they do in the latter trouble, continue and go from bad to worse in this disease. The hoarseness is about the first of these symptoms that makes its appearance, and it may in some cases be present for months before the pain or difficulty of swallowing make their appearance. It generally goes on increasing, however, until it terminates in complete loss of voice.

As the ulcerative process goes on in the cancerous mass there may be some bleeding from the throat, but this does not always take place; but when it does, taken in connection with the symptoms above named, persistent difficulty of swallowing, pain and loss of voice, in a person over 40 years of age, there ought to be pretty strong suspicions of the existence of cancer of the larynx. An examination of the throat with the laryngoscope will serve to clear up any existing doubt.

In cancer of the larynx the progress of the disease is slow, generally occupying several years before arriving at a fatal termination. It is probably the most fatal of all diseases of the larynx, death occurring in almost every instance; al-

though Rokitansky reports several cases in which cicatrization of the cancerous ulcer took place, and the disease terminated in completed recovery.

The treatment in this disease consists, in the first place, of making some sedative application to the ulcerated parts in order to allay pain; then if the patient is unable to sleep, opiates should be given. As a topical application morphia sulph. insufflated into the larynx seems to work well. Penciling the surface of the ulcer with a five per cent. solution of cocaine works admirably, but the influence of the remedy is of so short duration that it is necessary to be continually pestering the throat with its application; for that reason I think morphia sulph. should be given the preference, as its sedative effects are more lasting.

Tonics should be given to keep up the powers of the system.

Of the operative procedures that are recommended, such as *tracheotomy*, *thyrotomy* and *extirpation of the larynx*, I do not think they are justified, except as a last resort; they, in my opinion, like a good many other "heroic" surgical operations, serve to give a certain renown to the operator and death to the patient.

The operation of tracheotomy, Prof. Fauvel says, adds several months, and often even a year or two, to the patient's existence; "thus, in seven cases of encephaloid, left to their own course, the average duration of life was three years, whilst in eight similar cases subjected to tracheotomy the mean of life was three years and nine months." Again, in six cases of the epithelioma variety of cancer not operated upon, the average duration of life was one year and eleven months, whilst in seven cases which were operated upon, the duration of life was on an average four years.

The results of the operation of *thyrotomy* may be seen from the following twenty cases reported by Dr. Paul Bruns. The operation was for the removal of malignant growths, most of them of the epithelioma variety. In two cases death ensued after a few days. In the remaining eighteen cases the disease recurred in four, almost immediately after the operation. In four more cases the disease returned a fortnight after the wounds of the operation had healed. In three other cases the disease came back in from two to four months, from five to six months in two more cases and within eighteen months in one case. The results in the other three cases have not been reported, but the results in

the cases here cited do not make a very favorable showing for the operation.

In regard to the operation for extirpation of the larynx, from the data collected, the operation seem to be useless—as far as eradicating the disease is concerned, and, on the other hand, it, in the majority of cases, shortens the life of the patient. It is a most desperate operation, and attended in almost every instance by death, sometimes during its performance. In a case operated on by Langenbeck, of Berlin, he was compelled, during the operation, to tie *forty* arteries, to divide the lingual and hypoglossal nerves, on both sides, and to cut away the two submaxillary glands and a slice off the back part of the tongue; in fact, the patient had not very much of the forepart of his neck left after the operation was finished.

In concluding this subject, I wish to submit the following synopsis of all cases of extirpation of the larynx that have been reported up to the present time; they are, in all, *nineteen* cases.

EXTIRPATION OF THE LARYNX.

Number.	Name of Surgeon.	Date of Operation.	Age of Patient.	Sex.	Character and Situation of the Growth.	Part Removed.	Immediate Result.	Further Result and Remarks.
1	Billroth (Vienna).	Dec. 31, 1873.	36	Male.	Carcinoma of the larynx.	Part of the two upper tracheal rings, cricoid, thyroid, both arytenoid cartilages and lower third of epiglottis.	Recovery.	Death from recurrence of disease seven months after operation.
2	Heine (Prag.).	April 28 1874.	50	Male.	Carcinoma of the larynx.	Larynx entire.	Recovery.	Death from recurrence six months later
3	Schmidt (Frankfurt).	Aug. 12, 1874.	50	Male.	Carcinoma of the larynx.	Cricoid, thyroid and both arytenoid cartilages.	Death on the fifth day after operation.	
4	Maas (Breslau).	June 1, 1874.	57	Male.	Adeno fibroma Carcinoma-tosum.	Larynx entire.	Death two weeks after operation.	

Number.	Name of Surgeon.	Date of Operation.	Age of Patient.	Sex.	Character and Situation of the Growth.	Part Removed.	Immediate Result.	Further Result and Remarks.
5	Schonborn (Konigsberg).	Jan. 22, 1875.	72	Male	Carcinoma of the larynx.	Larynx entire.	Death a few days after operation.	
6	Bottini (Turin).	Feb. 6, 1875.	24	Male	Sarcoma of the larynx.		Complete recovery.	
7	Langenbeck (Berlin).	July 21, 1875.	57	Male.	Carcinoma of the upper part of the larynx, epiglottis and hyoid bone.	Larynx entire.	Recovery.	Death four months after operation, from recurrence of disease in neck.
8	Billroth (Vienna).	Nov 11 1875.	54	Male.	Carcinoma of the larynx.	Larynx entire.	Death on second day from croupous pneumonia.	
9	Maas (Freiburg).	Feb. 5, 1876.	50	Male	Epithelioma of the larynx.	Larynx almost entire.	Recovery.	Disease recurred in tongue three months after. Death three months later.
10	Gerdes (Jever).	Mar. 30 1876.	76	Male.	Carcinoma.	Larynx entire.	Death on fourth day.	
11	Reyher (Dorpat).	May, 1876.	60	Male	Carcinoma of the Vocal Cords	Larynx entire, except epiglottis.	Death on eleventh day.	
12	Kosinski (Warsaw).	Mar. 15 1877	36	Female.	Epithelioma of the larynx, with perforation of the skin.	Larynx entire.	Recovery.	Death nine months after, from recurrence of disease.

Number.	Name of Surgeon.	Date of Operation.	Age of Patient.	Sex.	Character and Situation of the Growth.	Part Removed.	Immediate Result.	Further Result and Remarks.
13	Foulis (Glasgow).	Sept. 10, 1877.	28	Male.	Mixed papil- loma and Sar- coma.	Larynx, ex- cept part of thy- roid and aryte- noid cartilages.	Cure.	Death from consumption, March, 1879.
14	Wegner (Berlin).	Sept. 16, 1877.	52	Female.	Carcinoma of the larynx.	Larynx entire, except epiglottis.	Cure.	
15	Bottini (Turin).	Aug. 29, 1877.	48	Male.	Epithelioma of the larynx.	Larynx and part of œsoph- agus.	Death on third day.	
16	Bruns, Sr., (Tubingen)	Jan. 29, 1878.	54	Male.	Epithelioma of the larynx.	Larynx entire.	Recovery.	Died Novem- ber 1, 1878, from recurrence of disease.
17	Rubio (Madrid).	May 11, 1878.	41	Male.	Necrosis of cartilages of the larynx.	Larynx entire	Death on fifth day.	
18	Billroth (Vienna).	July 7, 1878.	50	Male.	Epithelioma of the larynx.	Left half of the larynx.	Recovery.	Disease came back after six months.
19	Billroth.	Feb. 27, 1879	43	Female.	Epithelioma of the larynx and thyroid gland.	Larynx entire, part of pharynx and œsophagus.	Recovery	Death in six weeks.

Opium.

BY L. R. PEET, YALLAHA, FLORIDA.

DR. THACKER:

Dear Sir:—By accident my attention was drawn to the following case for so long a time that I became quite well posted concerning it; and feeling confident that a somewhat detailed statement of it is justified by the fact that warnings can hardly be out of place, as an aid to the physician in pointing a medical moral, which he must often be called upon to inculcate, I have undertaken to write out a description for your readers.

The man in question had reached his fiftieth birthday in the North. His only physical ailment had been an asthmatic affection, the after-part of an attack of scarlet fever, which very nearly closed his career in his tenth year. This bronchial trouble came only in the autumn, and had never excited any apprehension until, in his fifty-first year, it took on the appearance of preparing congenial soil for the enterprising and ever-present tubercle. Alarmed by this, he followed wise advice, and took up permanent abode in Florida. The asthmatic affliction he soon found he had left behind; but being so far advanced in years, the process of acclimation proved unusually severe, among other things fixing upon him a chronic diarrhea. On consulting a doctor, he was told that probably the best he could do would be to make use of laudanum, if it had on him no pernicious effect; not, however, to exceed forty drops in twenty-four hours. He commenced by taking ten drops on going to bed. In a few days he found his serum so far changed into gas, that the disgusting and depressing feature of his disease became a thing of the past. By observing the requisite diet, and keeping up the ten-drop dose, his bowels gradually came to the normal state. Here my account would close, but for the fact that, during an ague visitation, there came a relapse of so severe a character that, to check it, he took a dose of ten drops in the morning. So speedy was the relief, that he had an opportunity to observe certain psychological effects, which were to him entirely new and highly interesting. A fresh fountain of vitality seemed to be unsealed within him. He found himself more voluble, more eager in his habitual pursuit (literary), painless, every thought winged with cheer-

fulness. Being doubtful as to the cause of this, he tried the same dose the next morning. The effect was the same.

Several weeks elapsed. By degrees he observed that he was irritable in the afternoon, with depression. This naturally led to ten drops soon after dinner. The spiritual sky cleared, as he had expected, and life went on in its new groove as it had never gone in former years.

Thirty drops had now become a fixed habit. To insure bright and happy evenings, devoted to social purposes, he took another ten, with results of such sort that it readily became a permanency, like the rest.

Forty drops had now been reached, yet the closest introspection revealed no evil effects. His appetite remained good; he had passed into a costive habit, occasionally with intervals of 120 hours.

Full of confidence, he took things in his own hands. He first fixed the amount at fifty drops, and kept to it for several months.

The first pernicious effect was in the form of the most distressing paroxysms of dyspnœa of his life. It came on at daylight one autumnal morning, after he had taken fifteen drops the night before on going to bed. Three of these paroxysms came on successive mornings, and were at length ward off by taking twenty drops at the first appearance of light.

The amount was now sixty drops, and nearly two years had passed. To his surprise, he found his general health gradually and mysteriously failing; the whole system seemed breaking; the bronchia was constantly irritable; more or less night-sweating; remittent fevers of three kinds; no appetite. At last a physician was called in. What the trouble was he soon made plain; and forbade further use of the insidious drug, prescribing belladonna and laudanum. The sixty drops making only a little more than two grains, the victim thought it would be easy enough to lay aside. He laid it aside, and for about thirty-six hours he did not miss it. Then came the most distressing experience it had ever been his fate to have. His voice, naturally strong and resonant, passed into a whine, often so weak that ordinary emotion choked it. He could not bear to be alone, and found no interest in any form of diversion. This he bore as patiently as he could for three weeks. The doctor was then informed that it was no longer bearable, and, being a man of sense, he allowed the sufferer ten drops of pure laudanum per

twenty-four hours. The relief was complete, and it was found easy to confine himself to that amount; but so much he had to have.

His bowels behaved peculiarly. When the memorable three weeks commenced, they at once became lax, and the laxity so increased that, toward the end, there were eleven movements in as many hours. On returning to the drug, a healthy condition ensued. All fever symptoms, as also sensitiveness of the bronchia, ceased with the total abstinence, and did not return with the ten drops.

Several months have since passed; and, except an attack of pneumonia, which had no bearing on his experience with opium, his health has been fairly good. He seldom feels it necessary to take more than ten drops daily.

It is to be hoped that this narration may do for others what that which he has gone through does for him—keep them wholly from the drug, or enable them to confine themselves to such an amount as can do no harm. It may take a great number of grains to produce marked physical effects in a robust organization, but those effects will come sooner or later; and the more of the drug taken, the more terrible the struggle in laying it aside, even if it can be done at all.

The Relations Between Sanitary Science and the Medical Profession.

BY NATHAN ALLEN, M. D.

Read at the Fourteenth Annual Meeting of the American Health Association, Oct. 5, 1886, at Toronto, Canada.

Conclusion.

Unlike many other reforms and good works, there is a direct antagonism between the interests of this profession and sanitation. The support of this profession depends mainly on the *cure of disease*, not its prevention. Every step in this reform diminishes more or less professional income. There is no trade or speculation in this reform. When a person has spent years in study, and made large investments to secure a livelihood, how can we expect he will sacrifice these interests? There is probably no class of men, engaged in professional or other kinds of business, to whom

appeals of so complex and antagonistic character are made for services. The success depends much upon the education and the moral training of parties. On the one side stands out the highest welfare of the individual and society in respect to health, while on the other side the physician is tempted to make his own interests paramount to all others.

Let us for a moment consider his position. In choosing this profession, the pecuniary considerations were undoubtedly most powerful; and, then, in his early preparations and through his whole course of study, compensation for professional services has been constantly kept in mind. The whole drift of medical study, and teaching by sickness or from books, has express reference to the treatment and cure of disease—not, as we may say, its prevention. Add to this the most implicit faith that all classes generally have in drugs, together with the crowded state of the profession, it will be seen that the physician is virtually constrained to have an eye constantly on his business. It is true that in medical studies, lectures and books, a great deal is said about the charitable aspects of the profession, and that it is always expected to give a large amount of service to the poor.

It is just to state here that the claims of the sick-poor have been most liberally responded to by physicians, and that no other profession or class of men do so much for the poor as the medical profession. But this work of charity has its equivalent—it secures to the physician a stronger hold in the affection and confidence of the people, and, in different ways, tends to increase his business. But to engage actively in means to prevent disease, not simply in one instance, but in case of great numbers, this is very different—it cuts off directly the support of the physician. Such action is based upon a love of humanity—of philanthropy—a higher range of motive than that of giving services to the sick-poor. It appeals to the very highest class of motives—not simply to save expense and relieve suffering, or improve health and prolong life, but to elevate mankind and increase, physically, mentally and morally, the sum of human happiness. Such are the legitimate fruits of sanitary science.

Considering the powerful pecuniary interests of the profession, and the disinterested motives requisite to engage in sanitation-work, it is rather surprising that so many members of the profession have from time to time engaged heartily

in advancing sanitary science. The main object must have been the promotion of health, the diffusion of useful knowledge, and the enlightenment of mankind generally in respect to the laws of health and life. In some few instances it might have been prompted by pecuniary considerations—the individual holding some official position, or seeking one. But these are exceptional cases. Our state and municipal authorities have made such small appropriations for public health, that the salaries offered to medical men are not numerous or large enough to be very attractive. In this respect Great Britain is far ahead of us. The promotion of the public health has become there a part of her government machinery. The whole kingdom is divided into some fifteen hundred districts, over each of which a medical officer of health is appointed, with salary graded according to the services rendered.

Besides this provision, and showing the interest of the government in sanitary matters, there are over one thousand inspectors of nuisance appointed, in charge of as many districts. This inspection proves of great advantage, not only directly, in preventing disease, but, by dispersing information among the people, they become helpers in the work. The medical appointments in Great Britain are made on the ground of special training and qualifications for this kind of work, and the same persons are continued in office for years. Thus there is a wide difference between the interest in sanitary science in Great Britain and in the United States. In the former the science receives a powerful support from the government, and a large amount of means is annually distributed among its advocates. Besides, there is on the part of the people more general intelligence on the subject—a higher appreciation of the benefits of the science, and a more ready disposition to coöperate in carrying on the reform. Though the science has been making advances in these respects in the United States, there is much room for improvement. Our national government is not doing what it ought for public health; neither are the state or municipal authorities making the appropriations for it which they should.

Most of the contributions to sanitary science here have been voluntary. This reform has been carried forward by men heartily interested in the work—very few seeking or expecting any remuneration. The reward for such services does not consist in dollars and cents, nor in the plaudits of

the multitude, but in "the consciousness of duty done and noble deeds performed." A distinguished medical writer lately made this remark: "The most important work that sanitarians are doing at the present day is 'sowing seed which in time will yield abundant harvest.'" And never in the history of medicine was there such a combination of circumstances so favorable to improvement in the practice of medicine. Never before has there been such earnest inquiry made on the part of the profession to ascertain the true causes of disease. It has been found in the moral world, that in order to eradicate great evils, their primary causes must be first removed. So in the prevention of disease, the same course must be taken. This accords with the teachings of sanitary science. Leading members of the medical profession have here been doing noble work.

SANITARY IMPROVEMENTS IN MEDICINE.

Some twenty-five years ago Sir Joseph Lister, of Edinburgh, made a great discovery for the prevention of disease by introducing what has been called "Antiseptic Surgery." It had been found, prior to that time, that wounds and surgical operations were frequently followed by an inflammation which proved fatal. Surgeon Lister discovered that by an application of antiseptic dressings, patients were more sure to recover from the most dangerous operations. It is, moreover, found that antiseptics can be applied to many diseases, as well as to surgical cases, which checks their progress and aids essentially in the recovery. It is now admitted that a great amount of disease is thus prevented, and a multitude of lives may be saved.

Again, in this same line of prevention, there has been made, within a few years, one of the greatest discoveries ever made in the history of medicine—that some of the most dangerous diseases are produced by infinitely small animalculæ called bacteria and other micro-organisms. This subject is now undergoing most thorough investigations in Germany, France and Great Britain. If means can be devised whereby these bacteria can be destroyed, or their existence eradicated from the system, it will prevent a vast amount of disease.

Again, there seems to be a prevailing impression in the medical profession, that important changes are about to take place in the treatment of diseases. This sentiment is foreshadowed in a variety of ways, and many facts and illus-

trations might be cited in proof of the same. The most noticeable instance is the following: Dr. Austin Flint, of New York, was invited last year by the British Medical Association to give an address this year before that body. Dr. Flint died suddenly in March, but his address, by singular forethought, was found prepared for this occasion, which has since been published. The very title of the paper is significant—"Medicine of the Future."

No physician in the United States could discuss this subject with greater propriety and force than Dr. Flint, and, inasmuch as he was to voice the medical profession in this country before the highest medical body in Great Britain, it shows the importance he attached to this topic in its selection. At the same time, in presenting these views, he must have been pretty well assured that they would be cordially received by the leading members of that association. After recounting in the forepart of this address the changes that had taken place in his own experience in medical practice, he says: "We are entering upon a revolution in medicine. It is bewildering to project the thoughts into the future in order to foresee the changes which will be brought about in the coming half-century in our knowledge of the correction of diseases and the results as regards their prevention and treatment."

He expresses the opinion that hygienic agencies will be employed hereafter far more than they have been; that the normal conditions of health and the recuperative powers of nature will receive greater attention, and less dependence will be placed upon drugs and other artificial means. In referring to bacterial etiology, he says: "Here open to the imagination the future triumphs of preventive medicine in respect to all classes of diseases." When the medical profession, says he, "shall employ all the preventive measures possible and the best remedial medicines, disease will be more successfully treated, and the profession will have reached a high ideal position." Alongside of this testimony, we will quote the opinions of three distinguished English physicians who have given special attention for many years to sanitary science.

Says Dr. B. W. Richardson: "The influence which sanitation will exert in the future over the science and art of medicine, promises to be momentous. It promises nothing less than the development of a new era; nor is it at all wide of the mark to say that such new era has fairly commenced.

With the progress of sanitary science we must expect to see preventive medicine taking the ascendancy. With true nobleness of purpose, true medicine has been the first to strip herself of all mere pretenses to cure, and has stood boldly forward to declare as a higher philosophy the prevention of disease. The doctrine of absolute faith in the principle of prevention indicates the existence of a high order of thought, of broad views on life and health, on diseases and their external origin, on death and its correct place in nature."

Says Dr. Alfred Carpenter: "The science of disease-prevention is destined to alter the whole field of medical practice; to render obsolete much of our present knowledge as to the history of diseases and the measures which are now required for their treatment. The inquiry must come as to how the increase of disease is to be prevented, rather than, having arisen, how is it to be cured. This will apply to every kind of complaint, and will not be limited to any one class."

Says Sir Henry Acland: "In addition to treatment and cure of disease, whatever be the duty of individuals, medical science and art collectively must aim as a whole—1st. At the preservation of health; 2d. At the averting of disease from individuals and the public generally; 3d. At rearing healthy progeny for the family and the state by probing the laws of inheritance; and, 4th. At procuring legislation effectual to these ends. It claims, therefore, a voice in moral education as well as physical training. It holds a duty in relation to the diminution of vice, for the sake not only of self-destroying victims, but more for the sake of the innocents whom they ignorantly slay."

It would seem, that in the opinion of Dr. Acland, sanitary science covers very important ground. This opinion may be accounted for in part, from the fact that he has long been a professor at the Oxford University—has had large experience in educational matters, and understands the full import of physiological laws. If the preservation of health or prevention of disease is accomplished by improving the organization, a multitude of other improvements follow, and the more perfect the former, the greater will be the latter.

There is one method of preventing disease, referred to by Dr. Acland and other writers, which has never received the attention it deserves—that is, the observance of the laws of inheritance. Within a few years this subject has been con-

siderably discussed in the United States and Great Britain, but few seem to appreciate fully the magnitude of its bearings on sanitation. The diseases considered preventable—of which there are nine or ten—come under the zymotic class, but there are two other classes, called constitutional and local, each larger than the zymotic. Thus far, sanitary science has expended its principal force upon this class; but supposing its agencies could be brought to bear equally upon the prevention of diseases, in these two classes, what a vast amount of good it would accomplish! Let us explain. For many years there has been a class of diseases called “Hereditary,” because the predisposing causes were inherited—because they are transmitted from generation to generation, and thus run in families. Now, if those ancestors were free from any taint, or, in other words, had perfectly sound and healthy constitutions, the seeds, the germs, the predisposing tendencies, of disease would not be transmitted. Let us carry out a little farther this line of argument.

The same kind of evidence which proves that the germs of, or predisposition to, the disease are transmitted in a single instance, applies to all others of a similar character; and the legitimate inference is that there must exist in nature a great general law. Such a law, we believe, exists and is based upon a normal standard of physiology—a standard for the government of the human body, wherein all its parts are perfect in structure, and its organs harmonious in their functions. This standard of organization constitutes the highest measure of health; is free from all kinds of weakness, as well as predisposition to disease. But, unfortunately, we do not find such organized standards in the present state of society—only approximations; and the nearer individuals or families approach this standard, the sounder the constitution, the less disease; whereas, the further the deviations diverge from this standard, the greater are the weaknesses and liabilities to disease. Here come in the laws of inheritance—starting not in a perfect, healthy organization, but in conditions of the body where changes of some kind have taken place in the vital forces of the system. To understand and utilize these laws, they must be reduced to some system; the distinct relations between the causes and the effects must be traced out, till we find a great general law serving as a standard of appeal, or a regulator to all the minor ones.

There can be no question but that in the inheritance of

morbid tendencies we have one of the most fruitful sources of disease. This will become more patent in proportion as the principles of physiology shall become better understood in their connection with hereditary influences. Without attempting to describe the various ways in which the seeds of disease, or the predisposing causes, are transmitted from parent to child, we may say they are *manifold*—in organization or function; in defective or abnormal structure; in the weak or excessive development of this or that organ; in the general want of balance in the organs, and of harmony of function; in the quality of the blood, and the marked predisposition to certain diseases, like scrofula and consumption.

A class of diseases called "hereditary" have existed since the days of Hippocrates, and have always been considered difficult to treat, and much more to cure. Very little attention has been paid to these complaints by sanitarians, as it was supposed they could not be easily prevented. But this is a mistake; they originate from the violation of law by human agency; they can, then, certainly be prevented.

It is admitted by physiologists that all parts of the body can be changed by proper exercise and the law of nutrition—some parts increased in size and strength more than others—so that in this way a far greater measure of health can be secured. It is found that decided improvements can be made in the physical system during the lifetime of an individual, and that in three or four generations the human constitution may reach a higher state of perfection. If nature has, therefore, established a physiological standard of health—which is seldom, if ever, liable to disease—and at the same time it is well understood this standard is attainable, should not the greatest possible efforts be put forth to secure and maintain this standard? It is here in this field where the germs (the seeds), the primary causes, of a vast amount of disease, are to be forestalled. In this warfare with disease we have been content to lop off a few branches, leaving intact the trunk and roots. We have been battling the enemy in the outskirts, without attempting to take the citadel. Here is a great work for sanitary science; here this science is destined to reap its richest harvests. It may take time, but reforms in which the highest welfare of mankind are involved never remain stationary.

SANITATION OF THE FUTURE.

In drawing this discussion to a close, a few suggestions may seem appropriate. While quoting from Dr. Flint's address on "Medicine of the Future," the inquiry arises, Is not sanitary science also to have a "*future*"? Most assuredly. Its past history is very brief, and different from that of medicine. This extends back thousands of years, and its whole history is made up of a succession of changes. It is not so with sanitary science. A half century covers its whole existence. Its only change has been the constant unfolding and applying of nature's laws to the improvement of health and prevention of disease. It has not been found necessary in its progress to try experiments or apply any new medicine. As sanitation is based upon the laws of nature, its course can not change or go backward. "Excelsior!" is its motto.

This sanitary movement has certain advantages over other reforms. Its success does not depend upon the medical profession alone, nor upon the patronage of government, nor upon any one body of men, but upon all classes—men and women. The more people become enlightened on the subject, the more earnestly will they engage in the work, and become at once partakers in its benefits.

The history of sanitary science is full of promise for the future. It is really only about twenty-five years since it could be said to have had a fair start. Its doctrines have become deeply rooted, not only in the medical profession, but among large numbers of the laity scattered throughout this country and Europe. The press is committed decidedly in its favor. Its teachings are found broadcast in books, journals, pamphlets, reports and newspapers. Its principles are being taught and applied both in our common schools and in higher institutions of learning. Boards of health have been organized in all large cities and in nearly every one of the United States. The benefits already derived from this science can not be estimated in figures or described in language. The pestilence in this country has been stayed; epidemics have been checked; a vast amount of sickness prevented, and a great multitude of lives saved. In Great Britain, where the science has made greater progress, and more exact accounts are kept, upon Mr. Edwin Chadwick's authority, based on the Registrar-General's report, it is asserted that the lives of 30,000 persons are annually saved,

and 300,000 cases of sickness every year prevented by means of this science!

The two following statements, though once quoted, are so prophetic that they will bear repeating:

Forty-two years ago Dr. Elisha Bartlett said, in Philadelphia, while urging upon the profession a more thorough knowledge of the causes and nature of disease: "The next thing to be done is to find out the best method of modifying and *preventing* disease. This is the great mission that lies immediately before us; this is to constitute the great work of the next and succeeding generations." Forty years ago Dr. John Forbes, in an address to his brethren, said in London: "Redoubled attention should be directed to hygiene, public and private, with a view of *preventing* diseases on a large scale, and individually in our sphere of practice. Here the surest and most glorious triumphs of medicine are to be achieved."

Ten years ago Dr. Henry I. Bowditch, of Boston, who has given more thought to this subject than any other man in this country, said, near the close of his work on "Public Hygiene in America": "We stand now at the very dawn of the grandest epoch yet seen in the progress of medicine. While philosophically, accurately, and with the most minute skill, studying by means of physiology, pathological anatomy, chemistry, the microscope, and above all, by careful clinical observation, the natural history of disease and the effects of remedies—our art at the present day looks still higher, viz., to the *prevention* of as well as to the *cure* of disease."

These testimonials speak for themselves. They need no comment. The predictions here uttered are certain to be fulfilled. The glorious triumphs spoken of will surely be achieved. Individuals, organizations and institutions may perish, but these principles will live and advance step by step, from one triumph to another, from one glory to another.

It is related of a distinguished statesman, that, in the immediate prospect of death, he expressed the desire, that if possible, he might live fifty years more to see certain reforms in government carried out. So, the sanitarian, in forecasting the future, might well wish to live another half century, in order to see the great changes and improvements in society, brought about by the principles of sanitary science.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS, from the French, by Dr. Illowy,
Cincinnati, Ohio.

PURE MITRAL STENOSIS.

A clinical lecture by Prof. Landouzy. Charity Hospital, Paris.

BEFORE the days of Laennec and Corvisart it was impossible to trace this disease, since auscultation is the sole means of recognition, whilst the mixed mitral stenosis reveals itself to palpation, by hæmoptysis, and by hypertrophy.

This lesion of the mitral valves without striking symptoms, deserves a special chapter, which until now has been totally neglected. To prove that my assertion is not pure invention, what do you find in your works on Pathology? No matter which. A first part in which mitral insufficiency is described in a magistral manner; then a second chapter, entitled, "Of Mitral Stenosis," which we find confounded with the former by the fact that it is pretended that the etiology and pathogeny are the same. But you will say to me, Wherein lies the misfortune in not establishing any difference between them, except an anatomico-pathological one? It is this, that physicians gradually habituate themselves to regard mitral stenosis as a returned insufficiency. The best proof that to think thus, is to commit a grave error, is that mitral insufficiency manifests itself by imposing phenomena, whilst pure mitral stenosis has a period of evolution during which it is latent, in this sense, that the circulation being sufficiently assured, no functional trouble will cause the patient to present himself for auscultation. For this reason many physicians have pretended that this affection is of rare occurrence; and herein you find also the reason why those who are accustomed to examine the urine frequently, are led by the presence of albumen to examine the heart and to discover thus a mitral stenosis long before their colleagues, who await the appearance of edema. Know then, that if you once have the rhythm of mitral stenosis in your ear, you are entitled to make the diagnosis even when the symptoms that differentiate it from insufficiency are still wanting.

And now, why do patients go so long without complaining? It is because the left auricle becomes sufficiently hypertrophied to overcome the resistance, and consequently

to guarantee the integrity of the circulation. But when this hypertrophy, which lasts the longer the younger the patient and the less worn out, is succeeded by dilatation, then there are gradually produced those stases which put the pulmonary circulation into bad condition. The stasis reaches the pulmonary artery, and the patient can spit blood without the existence of any particular lesion. It is true that in almost every instance, based on the existence of a few *ralés* at the pulmonary summits, a diagnosis of hemoptysis, the prelude to tuberculosis, is made and believed until the day when the patient's condition, being considerably ameliorated by the application of a few cups and by prolonged repose, the idea strike us to examine his heart.

From this time on the patient, though he has been able to go and come, becomes a fit subject for the hospital. To this dilatation of the right there is superadded a tricuspid insufficiency, then an excess of tension in the right auricle, and finally in the canals, entering the heart. It is now that we see coming on the grand local asystolgy in the lungs, the liver and the lower limbs. This is, in short, the way that pure mitral stenosis enters into the symptomatology of cardiopathies.

After all this you can easily comprehend that it is certainly necessary that such a lesion be not passed over. If you take the trouble to collect the number of cases of pure mitral stenosis, clinically observed on the one hand, and those found anatomo-pathologically on the other, that it is where the authors give the drawings of what they have seen. You will find that, both in France and England. You will find that this affection is more frequent in women than in men. This is not a matter of simple operation.

During the years 1876 and 1877, during which my master, Prof. Hardy, gave a course of symptomatology, I was struck with the frequency of pure mitral stenosis in women, and this the more so that the books on pathology, not even the most recent, made no mention of it. I then set myself to verifying my observation with the aid of Dr. Durozier, in all the wards in the Charité, and to calling attention to this lesion in the bulletins of the Anatomical Society. Finally I gave the subject to Mrs. Marchal, as a subject for a thesis, on condition that she should control my opinion in other hospitals. Upon this she visited the hospitals, and among others Neker, where her diagnoses were verified by Potain. Later on, at my solicitation, she crossed the Chan-

nel, and in England as in France, she reached the conclusion above-mentioned, that mitral stenosis pure, is almost never observed except in women.

Here is a question, that from a practical point of view is certainly of great importance, and is of interest to the practitioner as well as to those inquisitive gentlemen—the anatomic-pathologists and etiologists. If sex, indeed, plays a predominant role, we shall certainly have to look for antecedents, altogether different from those of insufficiency. A second inquiry, made not only in my service, but also in that of others, has clearly shown that two-fifths of the women seized with pure mitral stenosis are free from any antecedents of acute articular rheumatism. I say antecedents, because to clearly prove my assertion in a rather round-about way, I have comprised in my collection of observations, all cases that presented long ago or lately, right or wrong, any disturbance on the part of the articulations. In résumé, in every woman who complains of a frank attack of acute-rheumatism, you can wager, that pure mitral stenosis is not produced thereby.

We should recognize this lesion during the period of adolescence, so that the patients be enabled to avoid the asystolic consecutive upon an accouchement or miscarriage. In fact, among the transitory patients in my service, those who were found with pure mitral stenosis at an advanced period of life, were females who had never been pregnant. In the three whom I recollect, the first was a nun who died at sixty-three years, the second also a nun, who is at present in the Hotel Dieu, and the third a widow in the full acceptance of the term, who had never during the seven months of her married life had a sign of pregnancy. In short, the career of these unfortunates is the shorter, the more active the general life. If it were necessary to give you proof that this woman, who is to-day in a comfortable condition of health, would to-morrow, by the sole fact of her being pregnant, be very sick, I could cite you examples from Peter, from Durozier, but I prefer to report that which we have seen develop under our eyes here. In a word, this is the history: A young girl who had been in the hospital for two years already for a pure mitral stenosis, and who had never gone out, obtained one day permission to go out for twenty-four hours. What did she do during that time? I did not know until after several months, when a commencing pregnancy was revealed. However it be from this time

on, she had several small hemoptyses ; then at the seventh month after a miscarriage, she had a veritable attack of asystoly ; finally another attack, somewhat later, carried her off. I must add that this malady is dangerous, not alone to the woman, but also to the child. Thus in one woman of sixteen pregnancies, only the first went to full term.

After I had announced in 1878 and in 1879, this greater frequency of pure mitral stenosis in women, I had also the curiosity to seek for the cause. But the only thing that I found was, that all things being equal, the mitral orifice is narrower in woman than in man. There is therefore nothing astonishing therein that a sclerosis being produced, it should be carried thither where the pressure is the greatest.

In conclusion, I would add that ápropos of this affection there arises one of the gravest questions in practical medicine, to-wit: The question of marriage, considering that your reply may plunge a family into desolation, and be the cause of unhappiness of some gallant gentleman. For my part, in a similar case, I should be desirous of having the opinion of a master grown gray in the art, who alone has the chance of preventing the misfortune of husband and children.—*Union Medical de Canada.*

RADICAL CURE OF EPIGASTIC HERNIA.—M. Terrier has made four operations for epigastric hernia, and thus demonstrated that surgical intervention is perfectly appropriate in these cases. The radical cure of these cases is the same as of those for which the operation has become classic.

He believes, therefore, that the operation is called for ; he has seen all the gastric disturbances, and the accidents which prevented the patients from working, disappear. He has treated in this way fatty, epiploic and intestinal hernias.—*Congrès Francais de Chirurgie, Union M. d. C.*

MIXTURE TO STOP FALLING OF THE HAIR AFTER TYPHOID FEVER.—Bouchard (*Le Concours Medicale*) recommends the following:

Ry. Ol. ricini,	.	.	.	7 grams.
Goudron,	.	.	.	2 "
Tinct. benzoini,	.	.	.	20 "
Chloroformi,	.	.	.	30 "
Alcohol,	.	.	.	1,000 "

Selections.

Laparotomy as a Diagnostic Resource.

At the meeting of the New York County Medical Association, on November 15th, Dr. T. Gaillard Thomas read his first paper before the association; and, coming from such a source, with a subject of such marked significance at the present time—"Laparotomy as a Diagnostic Resource"—it will naturally attract much attention. Empiricism, Dr. Thomas said at the outset, has steadily given away before logical deduction; the dogmas of the schools and the dicta of the masters have gone down before clinical research and experimental demonstration; and the theorist of the closet and the bookworm of the library have been replaced by the chemist, the anatomist and the microscopist.

The modern development of the art of diagnosis has been accomplished by the subordination of theoretical methods of exploration and investigation to those which were purely physical; but throughout the whole domain of surgery there is no field in which diagnosis is more surrounded by difficulties than that of abdominal neoplasms. Formerly the diagnosis of abdominal tumors was allowed to rest upon deductions capable of being drawn from rational and physical methods, the latter of which were limited by the abdominal walls without and the pelvic roof within; but to-day surgeons devoting themselves to this department of our art are fully agreed as to the propriety of opening the abdominal walls for the purpose of exploring the viscera fully by touch, and to a limited extent by sight. After an experience yielded by seven or eight hundred cases, approximately, of laparotomy for various causes, extending over a period of twenty-three years, Dr. Thomas feels that he can say with truth that he has never once regretted opening the abdomen, and that he has in a dozen cases, at least, deeply regretted not having done so. He thinks it certain that in the future explorative abdominal incision will become the rule in all cases of the following conditions which do not yield to medical means, and concerning the etiology of which there is great doubt: 1. Wounds and injuries of the abdominal viscera; 2. Intestinal obstructions; 3. The presence of stones in the bladder or kidneys; 4. The accumulation of blood, pus, or

serous fluid from any source; 5. The existence of a neoplasm in any part of the abdomen; 6. The occurrence of serious organic changes in certain of the viscera of the abdomen, such as the kidneys, the spleen, the uterus, the Fallopian tubes, or the ovaries; 7. Ectopic gestation.

Even under the most favorable circumstances, the most skillful diagnostician is constantly likely to make errors without its aid; and hence it is that explorative incision is peculiarly valuable. In order to better convey his views and give his experience upon this subject, he mentions first some cases in which he had to regret non-interference, and then others in which more active measures produced happier results. The first case related was one of intestinal obstruction which occurred seventeen years ago, in which it was decided not to operate. The patient died; and at the autopsy a loop of intestine was found constricted by a string of false membrane, the result, probably, of some old peritonitis, which could at once have been removed by snipping with a pair of scissors. The second case was one of large uterine fibroid, which caused fatal exhaustion by its pressure on the abdominal viscera. The question of exploratory laparotomy was decided in the negative, and the patient died; but at the autopsy it was found that the tumor, which weighed forty pounds, was entirely unattached in the peritoneal cavity, and connected with the uterus by quite a slender pedicle; so that removal would have been easy. The third case was that of a lady who had a very large abdominal tumor, which was apparently solid. Consequently operative interference was declined; but when she died, about a year afterward, it was found that the neoplasm was a multilocular ovarian tumor, entirely free from adhesions, with a small pedicle, and which could have been removed with every prospect of success. The reason for the obscurity of the diagnosis in this case was, that the tumor was composed of innumerable small cysts, the walls of which were thick, and the fluid within them colloid. Case fourth was another one of intestinal obstruction, in which it was decided not to operate; and at the autopsy it was found that the transverse colon at its middle was distended with hardened fæcal matter held in an indissoluble mass by a quantity of hay. It is certain that upon abdominal section this would have been readily discovered; and it is probable that, by a process of kneading, it could have been dislodged and pressed on toward the rectum.

He mentions an obscure case, which proved to be one of extra-uterine pregnancy, and in which no operation was performed; and said, in defense, that almost all of this variety of his cases occurred fifteen or twenty years ago, which time carries us back into the ancient history of the subject. Few such cases occur to him now, for the reason that he is a strong advocate of explorative incision as a diagnostic resource. He mentions a few out of the very large number of cases in his later experience which illustrate the brilliant results which commonly attend upon this procedure. The first was one of supposed large uterine tumor with ascites, for which the patient had been repeatedly tapped, until she was in an exhausted condition. Laparotomy was performed, and he found that the fluid was not the result of ascites, but was ovarian fluid, which poured out from a ruptured ovarian cyst, which in its collapsed state occupied the pelvic cavity, giving rise to the belief that it was a fibroid. The operation for removal of the sac was simple, and the patient made a rapid recovery. The second was a case of hæmato-salpinx, in which the excessive distension of the Fallopian tubes gave rise to a sensation of solidity which made the diagnosis before operation very obscure. Both tubes and their corresponding ovaries were removed, and the patient was entirely cured. The third case was quoted as illustrating the fact that cases of abdominal tumor are sometimes utterly beyond the realm of diagnosis until the cavity is opened. For years this patient had a firm tumor behind the uterus, when suddenly she became almost collapsed, and suffered greatly from pain in the tumor, which nearly doubled in size in a day or two. Laparotomy was performed, and a large blood-cyst was emptied from Douglas' cul-de-sac; after which he shelled out the skull of a six months fœtus. The patient died in ten days from cardiac thrombosis. The fourth case was one of intestinal obstruction caused, as was found on opening the abdomen, by a mass of malignant growth encircling a considerable portion of the large intestine. The patient died about a month after the operation.

There is one class of cases in which, in his hands, Dr. Thomas says, explorative incision has yielded particularly brilliant results, viz.: Cases of ascites in the female. In this connection he makes the special point that some cases of excessive ascites, which by repeated tapplings proved fatal, are due to insignificant uterine or ovarian tumors, which are too small for recognition, unless specially and carefully looked

for, and the removal of which relieves the fluid accumulation which, by its exhausting influence, destroys life. These tumors are sometimes no larger than a small apple, and can not be recognized except by the careful examination of an expert. In stout women, and often even in thin ones, they can not be discerned at all after accumulation of ascitic fluid has taken place. Moreover, in some cases, even where a tumor in the pelvis as large as a cocoanut coexists with ascites, no connection between the two pathological conditions, as cause and effect, is ordinarily traced by the medical attendant. Should this be the case, should the existence of the neoplasm be not detected, or should the malign influence not be appreciated even when its presence has been diagnosed, the physician will probably endeavor to cause absorption by pressing into action the three emunctories—the skin, the kidneys and the bowels. This usually fails, and if it does not—the cause of the symptom remaining after the symptom itself has been removed—frequent resort must be had to the plan, which in time impairs nutrition and exhausts the vital energies. If, on the other hand, tapping or aspiration be employed, the beginning of the end soon shows itself, and it becomes merely a question of time how long the system of the patient will bear the exhausting drain to which it is exposed. Dr. Thomas has met with a number of cases in which he completely cured aggravated cases of ascites, after tapping had been repeatedly resorted to, and after all hope of recovery had been given up. He feels justified in assuming the position that, in cases of ascites in the female, before the patient is relegated to the usual practice of repeated tapping, with its universally bad results as to cure, the most thorough investigation in regard to the possible existence of small neoplasms as important pathological factors should be made; and if signs of their existence be obtained, explorative incisions should be made, as a forlorn hope that relief might be obtained.

In closing his valuable paper, Dr. Thomas refers to two practical points. The first is the curious fact that, in certain cases of abdominal incision, in which diagnosis alone is practicable, and in others in which removal of the tubes and ovaries is impossible, great improvement sometimes results to the patient's general and local condition from the explorative effort alone. The second point is the necessity for certain rules which should be observed in the performance of this simple surgical procedure: 1. Every explorative incision

should be made under the strictest antiseptic precautions. As to strict cleanliness, all are agreed; if antiseptics of chemical character are valueless, they at least, in all probability, do no harm. While the question as to their utility is still *sub judice*, give the patient the benefit of the doubt, and employ them. 2. Always employ the anæsthetic. 3. Always make an incision which will admit the whole hand; one which will admit two fingers only is hardly warrantable. If possible, let but one man's hand be passed into the abdominal cavity. 4. Never hurry an explorative incision, but never prolong one unnecessarily. Let discussion as to diagnosis occur after the peritoneum is closed; not while it is open.—*Journal American Medical Association.*

Neurotic Symptoms Attending the Menopause.*

BY WILLIAM GOODELL, M.D.,

Professor of Gynæcology, University of Pennsylvania.

THIS patient comes to us with the history that she is sixty years of age, that she has had three children, the youngest of which is thirty years of age. The menopause occurred ten years ago. She complains of a burning pain in the pelvis. On vaginal examination, I find a cicatricial band at the neck of the womb. We not infrequently find women about this age complaining of a burning pain in the abdomen, running down through one iliac region to the vulva. This, to my mind, is a neurosis, and it is one that is very difficult to cure. The change of life usually does not require a long time, and, as a rule, at the end of that time the woman is well; but she may present a condition of this kind. Under these circumstances I always give the bromides, and a favorite prescription with us is the following:

R. Ammonii chloridi, ʒ ij
 Ammonii bromidi, ʒ iv
 Tinct. gentianæ co.,
 Aquæ, aa f ʒ iij. M.

Sig.—A tablespoonful, in water, before each meal.

I always give with the bromides a bitter tonie, to counteract their depressing effect. I am fond of using the ammonium

*Extract from Clinical Lecture in *The Polyclinic*, November, 1886.

chloride, on account of its stimulating effect on all the emunctories. The ammonium bromide is used instead of the potassium salt, because it makes a neater prescription, and also because its effect is less depressing. Another formula, which I frequently employ in these cases, I may as well give you now. It is my pil. sumbul comp., sugar-coated by Bullock and Crenshaw :—

R. Acidi arseniosi, . . . gr. $\frac{1}{40}$
 Ferri sulph. exsiccati, . . .
 Extract. sumbuli, āā . . . gr. j
 Asafoetidæ, . . . gr. ij. M.
 Ft. pil. j.

Sig.—One after each meal. If this does not have the desired effect, the dose may be increased.

I am disposed to think that the burning of which this patient complains is purely a neurosis. It seems incredible that at this time of life it could come from the ovaries, but it may come from the plexus of nerves in the neighborhood of these organs. There is another form of burning to which I desire to refer. Women about the change of life, or past it, will speak of a burning of the vulva, usually accompanied with itching. My advice is, under such circumstances, always to examine the urine for sugar. If the woman is at all stout, there is probably sugar in the urine. It has been supposed that it was the presence of the sugar in the urine trickling over the parts that caused the pruritus. This may be so in a few cases, but in the majority of instances the itching is a neurosis. In the treatment of these cases, local applications, with remedies directed to the glycosuria, are required.

There may be at this period of life a burning, accompanied with itching, which may be due to a senile catarrh with an acrid leucorrhœa. The discharge comes from the cavity of the womb, and while it may not be sufficient to attract attention, it may be sufficient to cause itching. I have found that curetting the womb was the best way of getting rid of this form of burning. With this I associate internal applications.

These women will often come to you with the statement that they have a tumor, when the whole trouble is that they have nervous flatus, causing distention of the abdomen. I wish that I could find a theory which would satisfactorily explain how it is that, in certain conditions of the nervous

system, there will be the sudden distention of the abdomen with flatus. I am disposed to think that gas may be rapidly generated in the human body. Otherwise it seems impossible to explain this. The patient's attention is called to the swelling by the fact that the clothing is tight, and she will come to you with the statement that she has a tumor. Indeed, I have had physicians send me patients whom they thought had a tumor, when the whole trouble was due to a collection of wind. In such a case there would be resonance all over the front of the abdomen. This is a diagnostic sign. Another is, that by taking hold of the abdominal walls, you can lift up a large fold of skin, so that there would be no room behind it for a tumor of any size. Then if you percuss, you will find no evidence of a tumor. Of course, this does not serve to exclude a small tumor, but the patient consults you on account of a large swelling.—*College and Clinical Record*.

The Management of Placenta Prævia.

DR. Q. CINCINNATUS SMITH thus writes in *Gaillard's Medical Journal*: When the physician in charge of a case of placenta prævia decides, for any reason, that delivery should not be longer deferred, regardless of the stage of pregnancy, the writer recommends, provided a few minutes' time for preparation is admissible, that he should pursue the following plan: Give quinine, five to ten grains, every hour, in solution, until one or two drachms be administered. Prepare one or two gallons of hot saturated solution of alum, or other styptic, and a syringe in good working order, with long nozzle curved at its distal end like a urethral sound. It is best that the point of the nozzle should be perforated with a number of small holes.

Place the patient in Sims' position, and bring the os uteri well into view. Introduce the syringe nozzle into the os uteri and slowly inject the hot styptic solution, and, as soon as the hemorrhage is checked, slowly rotate the curved nozzle around the os—injecting all the while—and thus separate the placenta from the uterus. When this has been well done, and hemorrhage has ceased, with the finger at once puncture the placenta, at its thinnest available point, through to the membranes; and, if possible, puncture the membranes at the same time. Then quickly inject the hot styptic solu-

tion until the hemorrhage ceases again. If the membranes can not be easily and quickly punctured with the finger, the amniotome should be used.

From the beginning of the operation an assistant should make steady pressure, in a proper manner, over the fundus uteri. At this stage of the operation, if it has not before (as soon as the waters have come away), the uterus will contract more or less vigorously, and if the down-pressing fœtus does not stop all hemorrhage, the hot styptic solution will promptly do so. If necessary, one or more hypodermics of sclerotic acid may be administered. Earnest and persistent effort should now be made to dilate and soften the vagina and os uteri, for which purpose Barnes' rubber dilators, distended with warm water and well lubricated, are very effective.

The labor can then be completed in accordance with general well-established principles, as the attendant—if properly furnished—is completely master of the situation, whatever may be the size, presentation or position of the fœtus, provided no serious deformity of the pelvis obtains.

On "Relapses" Following Recoveries from Overdoses of Injections of Morphine.

DR. EDMOND SOUCHON thus writes in the *New Orleans Medical and Surgical Journal*: The following two cases show how dangerous it is to leave too soon patients who have been rescued from the ill effects of injections of morphine:

1. The first case is that of an old gentleman who was suffering from an attack of cystitis, and who had been taking, for several days past, an injection of one-fourth or one-third of sulphate of morphine every evening. One night, after he had taken his usual evening dose, he went to sleep; but toward midnight, as his breathing had ceased to be audible to his wife, she called him, but he did not answer. She tried to rouse him, but she failed; and upon turning on the light, she saw him motionless, pale and not breathing at all. She became more alarmed than ever, and, calling up her son, sent him after their family physician. As this physician lived some distance off, the young man, on passing my door, rang the bell and asked me to hurry at once to his father's house, as he was dying of an overdose of morphine. I hurried there,

of course, and found the old gentleman laying flat on his back, with mouth wide open, features pinched, face covered with cold perspiration, with no pulse, and drawing a short, ineffectual breath every twelve to fifteen seconds. I at once secured the tongue, which had fallen backward into the pharynx; and, as I could get no assistance from any one, I held the tongue fast with one hand, whilst, with the other, I practiced artificial respiration as best I could. I let the head hang a little low. Soon, however, a priest, who had also been sent for, arrived, and he was kind enough to hold the tongue, whilst I, with my two hands, practiced artificial respiration more fully and more satisfactorily. Upon the arrival of the family physician, he said he could not account for this, as he was sure he had not injected more than the usual dose. He slapped the face and chest of the patient with the end of a towel wet in ice water; we gave him coffee, and injected whisky subcutaneously. It was only after a full half hour of these combined efforts that he could draw a satisfactory breath every six or seven seconds in a continuous and regular manner. It was fully an hour before the respiration was fully reëstablished, and he was conscious of what was going on around him. It was about half past one in the morning when I left him in charge of his family physician. At five o'clock I was called again by the son, who told me that their doctor had left at half past two, but that his father was again in a deep lethargy, and to go there immediately, while he was also going for their regular attending physician. I found the patient in about the same condition as I had found him the first time, but he was not so far gone. The same means as above being employed, he was fully aroused in about twenty minutes' time. I am satisfied though that he would have died then and there, if he had not been attended to properly and at the proper time. This time his physician remained with him for several hours, but there were no more relapses.

2. This second case is one of a young man about twenty-four, on whom I operated for a *colloid cancer of the zygomatic fossa*. The operation was a long, painful and bloody one, and most unsatisfactory, the growth returning very rapidly. With the faint hope of success, and to keep up the poor boy's courage, I tried to destroy the returning tumor by injecting into it pure chloride of zinc. This seemed for a while, at least, to keep the tumor in check; but one day, after returning from a trip in the country, where he remained longer

than he should have done, I found that the tumor had gained so much ground that I injected more zinc than I usually did. This developed a great deal of pain—proportionately more than ordinarily—and to soothe his suffering I injected subcutaneously one-half of a grain of sulphate of morphine. This dose I did not consider very large for him, as he had repeatedly had one-third of a grain injected into him, and as he was in the habit of taking syrup of morphine in large doses when under too great pain. This took place at about six o'clock at night. I returned to see him again at about half past seven the same evening. Upon nearing the house, I saw a gathering of people at the door, and I knew that surely something very bad was going on inside. Upon reaching the bedside, the patient was in complete collapse, had a small and quick pulse, breathed but feebly at long intervals; the face was pale, the features pinched and the skin covered with a light perspiration. I immediately applied all the means described in the above case; but it took fully three hours before he would breathe often enough by himself, and before he was and remained conscious of what was going on around him. He remained that way for many hours, talking and taking some fluid nourishment; but, toward two o'clock in the morning, he was overtaken again by an irresistible sleep, which all the renewed efforts on our part were powerless to overcome. He gradually sank, and died at half past five o'clock that morning.

The Oil of Gaultheria in Rheumatic Affections.

BY D. H. LAKE, M.D.,

Late Resident Physician, Blockley Hospital.

DURING my term of service in the Philadelphia Hospital, I treated eighteen cases of articular rheumatism with the oil of wintergreen. My attention was first drawn to this treatment by an article on the subject in a Boston medical journal.

Following are histories of cases:—

CASE I.—John S., æt. 23, baker; a German, of large frame; family history of no importance. Admitted April 14, 1885, and gave the following history: At fifteen had first attack of rheumatism, which confined him to the house for seven weeks. Remained in excellent health until June

of 1884, when, working in a cellar at his occupation, where he was exposed to heat and currents of cold air, he was quite suddenly seized with pains in his knees and shoulders. His account of the symptoms would indicate that the patient suffered excruciating pain, and was, in consequence of his swollen and painful joints, under treatment for a period of fifteen weeks, part of which time was taken up by a relapse, during which time he was under treatment in this hospital. From the expiration of this protracted illness until April 1, 1885, he kept constantly at work, when he recognized the return of the same symptoms from which he had previously suffered. He now had a feeling of stiffness in his left knee and right ankle, but he continued to work until the evening of the 12th, when he was admitted into the hospital. On admission, temperature was 102° F. Complained of severe pain in knees and shoulders; could not flex right forearm on arm; right knee greatly swollen and inflamed; exudation present; perspiration profuse; has a loud mitral systolic murmur; impulse felt one inch to left of usual locality. He states that since his first attack of rheumatism he has, upon the least exertion, suffered from dyspnoea, accompanied with a feeling of oppression over cardiac region. Urine negative.

Treatment.—Ol. gaultheriæ *mxx*, every two hours for the first twenty-four hours. During the second day he received *mxx* every two hours, at the expiration of which time his stomach became somewhat intolerant; however, his pain, which had been intense, had disappeared, perspiration had diminished, the tumefaction of joints was reduced, and the man was desirous of sitting in bed. During third day he took the oil every three hours, in doses of ten minims, at the end of which time the patient was quite indignant at being obliged to remain in bed. During the first night patient received his medicine every three hours, likewise the night of second day. Temperature on morning after admission was 99° F., and registered the same at night. Highest temperature was $103\frac{1}{3}^{\circ}$ F., taken six hours after admission. On afternoon of fourth day patient sat up in bed, and on sixth was permitted to walk about the ward. Discharged from house on morning of ninth day at his own earnest request.

CASE 2.—Mary G., æt. 38, large and plethoric, was admitted with A.M. temperature of 100° F. Her wrists and right knee very painful and swollen; left ankle was swollen and livid, excessively painful to touch; had been drinking

heavily for three days, and had been exposed to cold. Was given the oil of wintergreen, as in preceding case. On second day the pain began to migrate, but the swelling rapidly subsided, so that on seventh day patient was about the ward.

CASE 3.—Thos. B., æt. 45. A plain case of acute articular rheumatism, in which several of the larger joints were involved from time to time. After continuous use of the oil of gaultheria for three days and nights, swelling, discoloration and pain had left the joints, but some stiffness of the knees remained. On the fourth day, the stomach being now very irritable and vomiting having been induced, patient was given potass. bicarb., gr. xv. every three hours. On the ninth day patient was up and walking about the corridors.

CASE 4.—Antonio M., laborer; æt. 35. Complained of severe pain in the left knee and shoulders. Temperature on admission at 2 P.M., $100\frac{3}{5}^{\circ}$ F. Had been working in a ditch, so that his feet were constantly wet and cold. Upon examination, found left knee the seat of intense pain, slightly discolored and some exudation on inner side. Right ankle was stiff, so that he could scarcely use the joint. Felt stiffness in joints mentioned for two days before admission. Was given the oil, as in the other cases. At the end of forty-eight hours patient stated that he felt quite comfortable, but was troubled with perspiration, so that a change of his clothing was necessary.

Was obliged to stop the administration of the oil on the fourth day, when patient received scruple doses of potass. bicarb. every four hours. Prior to administration of the alkali, patient's temperature had been normal for thirty-six hours, but now it began to rise with a recurrence of the joint manifestations of rheumatism. After two days I returned to the use of the ol. gaulth., and in twenty-four hours the temperature lowered, and remained normal until the discharge of the patient. This case was of longer duration than any other treated in the same manner. Having a number of chronic cases in the wards in which I was on duty, I tried the oil, but found it devoid of any degree of utility.

I failed to notice in any of the cases under my observation the depressing effects so often produced by large doses of salicylic acid. It is true the oil caused some nausea and

gastro-intestinal irritation, but these only after the more important symptoms of the disease had subsided.

The oil will, I believe, lower the temperature as quickly as salicylic acid or salicylate of sodium, with less danger of heart complication.—*College and Clinical Record*.

A Case of Actinomycosis.

DR. A. J. OCHSNER read a report of a case before the *Chicago Medical Society*, with exhibition of patient. The patient, a stock raiser, aged fifty-six, entered the Presbyterian Hospital of Chicago, October 13, 1886. Until the autumn of 1887 the patient was in perfect health, following his occupation of stock raising. At that time he was exposed to drafts of cold air during a journey, and experienced severe neuralgic pains in the left antrum of Highmore. He had seven teeth taken from his upper jaw, from which all the other teeth had previously been removed, but these proved to be sound and he obtained no relief by their removal. For six months he suffered excruciating pain in the left antrum and in both eyes from sunrise until sunset. In 1878 there was a spontaneous opening of the abscess into the pharynx, evacuating a considerable amount of pus and some blood and giving the patient marked relief. A portion of the discharge usually entered the larynx at night, giving rise to severe cough. In May of that year the patient underwent a surgical operation, an opening being made into the antrum above the first molar and the cavity curetted and irrigated. The irrigation was continued two or three times daily for two years, during which time he suffered severely from pain and weakness. In the spring of 1882 the patient went to Northern Mexico and spent the summer on the plains and among the mountains between that point and Colorado. His general health and strength were much improved. In July, 1885, the patient began to cough and continued to do so until his admission into the Presbyterian Hospital. During September, 1885 and 1886 he expectorated blood, but thinks it came from the posterior nares. Since the 1st of October, 1886, he has expectorated mucus and pus streaked with blood, which undoubtedly comes from the lungs or bronchi. The patient has lost thirty-seven pounds in weight during the past two years; his position is stooping, chest full in front and a

decrease of motion on the left side with dullness, roughened respiratory sounds and numerous mucous râles. Below the upper border of the fifth rib and throughout the right side the sounds are normal. The history of the patient led to a suspicion of actinomycosis of the left lung, which had primarily existed in the antrum. By a microscopic examination of the sputum the characteristic fungus was at once found, confirming the diagnosis beyond a doubt. Dr. Ochsner considered the following facts of practical interest in connection with the case:

The patient has been engaged for more than forty years in raising, buying and selling large numbers of cattle. Many of these animals suffered from lumpy jaw, and it was his practice to cure them by freely opening the abscess, by crucial incision, extirpating as much as possible of the lump and introducing about one drachm of powdered arsenic into the cavity. Repeating this once or twice, usually effected a permanent cure.

Dr. R. H. Babcock said: The case is one of exceeding interest from its rarity, and particularly as it is a case occurring in this country and one of very few that have been recorded, and in this case the diagnosis is so unquestionable that the interest is all the greater. We know that in cattle the disease is manifested by tumefaction in various organs, whereas in human beings it is by suppuration and metastatic abscesses. The disease in the human being may affect any of the organs, not merely the lungs, but particularly the viscera of the abdomen. I would like to ask Dr. Ochsner if there are signs of the disease having attacked other parts of the body than those mentioned, any symptoms which lead him to infer that the digestive organs or the stomach are infected.

Dr. R. Tilley said: This is certainly one of the most interesting questions that has been brought before the Society for a considerable time. In the case presented tonight the disease seems to have originated in the antrum, and is therefore especially interesting to those engaged in treating affections of the nose and throat and the teeth. As in the history of this case there was a considerable amount of pain associated with the eyes, it is of interest to the ophthalmologist, and as it is now associated with the lungs, it is of interest to those engaged in the study of affections of the lungs. As this case, together with the last case presented to the society, in all probability constitute the only

indisputable cases that have appeared in English literature, I think it would be of sufficient interest to the society to ask Dr. Ochsner to carry the investigation still further and try and produce the disease by inoculation on one of the lower animals. I will move at the proper time that the Society place at Dr. Ochsner's disposal the necessary funds. I would suggest that Dr. Ochsner accompany his report with a diagram of the fungus as it appears under the microscope. I have looked at the various schematic sketches that are published, and I claim that it would be absolutely impossible for any one with only the information afforded in these articles, without further study, to diagnosticate the fungi as they appear in the specimens presented. In Dr. Belfield's book I think the diagram is more in correspondence with those we see to-night, but those that are in Councilman's article in Wood's Reference Handbook certainly do not present such an appearance.—*Journal of American Medical Association.*

Micröscopy.

The Clinical Importance of Bacteriological Investigations.

WE believe that few physicians, as yet, appreciate the practical value of examinations of secretions and tissues for micro-organisms. We are on the eve of an era in clinical medicine in which bacteriological investigations are to occupy as important a position for the purposes of diagnosis, prognosis and treatment, as the physical examination of the chest and the analysis of urine do at the present time; and it behooves every physician, who hopes to keep pace with the latest advances in his art, to make himself familiar with practical bacteriology. As there were physicians thirty or forty years ago who would not take advantage of the benefits of physical examinations, so, to-day, many, satisfied with their present methods, will pass over the positive information which an examination for micro-organisms will give. Not all physicians, however, who are fully conversant with and wish to take advantage of the best resources of modern medicine, are able to devote the time that is necessary

to acquire dexterity in the technique of bacteria staining. Others, again, do not wish to purchase the somewhat costly apparatus that is necessary. To these, the various microscopic laboratories throughout the country offer their aid. Many of the specific diseases have been proven to be due to micro-organisms, and it will not be long before the pathogenic bacteria of them all will be discovered. In at least four of these diseases—anthrax, relapsing fever, tuberculosis and cholera—the diagnostic value of the finding of their characteristic bacteria is of prime importance. The first two of these diseases are not very common in our country, and many of our physicians are unfamiliar with their clinical histories; and this fact enhances the value of a positive diagnostic sign.

Too much can not be said of the importance of a search for tubercle bacilli in suspected tuberculosis. The unity of the various forms of phthisis is now definitely settled—they are but clinical varieties of tuberculosis. "If, now, we discover in the sputum that parasite, which we know to produce tuberculosis, we are forced to conclude that a tubercular process is going on somewhere in the respiratory apparatus, including the mucous membrane of the mouth and pharynx" (Friedlander). Tubercle bacilli are found in great abundance on every point of tuberculous ulceration, however small, and may often be demonstrated weeks or months before a positive opinion can be formed of the nature of a suspicious apex-catarrh. Can the physician afford to neglect such a valuable aid to diagnosis and guide to treatment? The finding of bacilli, although of grave significance, can not be regarded as a positive indication that the result will be fatal. Their discovery reveals the powerful enemy we have to fight, and shows the necessity of strengthening our defenses against further invasions. It is general, not local, tuberculosis that generally kills. A tuberculous spot may exist for years without immediately compromising the patient's life, and so long as the disease is localized, we may hope that its progress may be checked; indeed, post-mortem examinations show that fully fifty per cent. of the bodies examined were, at some period during life, the subjects of localized tuberculosis. "On the other hand, the constant absence of tubercle bacilli from the sputa, may be regarded as a certain sign that the destructive processes of tubercular phthisis are not then going on in the lungs" (Friedlander). For the diagnosis of non-specific destructive conditions, as the formation of

abscesses, the disintegration of tumors, etc., this negative sign is of the greatest importance.

Localized tuberculosis in tissues other than the lungs can, in the same manner, be diagnosticated; and the importance of the recognition of the infectious nature of a cheesy, scrofulous gland, a discharging sinus, or a chronic joint inflammation, is apparent.

The country has thus far escaped the invasion of the cholera epidemic which has decimated so many districts of Europe during the last few years. At any moment, however, the disease may be imported into our midst, and the responsibility of a prompt and correct diagnosis may fall to the lot of some practitioner remote from the great commercial centers. The responsibility which will be thus thrown upon the physician will be a fearful one. Upon the promptness and accuracy with which he recognizes the disease will hang the lives of hundreds of our citizens. Whether the disease shall be checked in its incipency or be allowed to spread until almost beyond control, will depend upon his knowledge and judgment.

Many cases of cholera-morbus resemble cholera so closely in their symptomatology, that a certain diagnosis from the symptoms alone is impossible. In the dejecta of cholera, however, there is an organism, the comma bacillus of Koch, that is characteristic of that affection, and, when found and identified, establishes the diagnosis beyond all possibility of doubt. The physician, or officer of the health, who neglects to utilize this positive knowledge, is taking a fearful risk.

Photo-Micrography.

Reported for MEDICAL NEWS by A. H. Breckenfeld, Secretary.

LOCAL Microscopists in Session—The Microscope in Photography—Dr. Ferrer Exhibits an Exquisitely Finished Microscope.

The San Francisco Microscopical Society held its regular semi-monthly meeting December 8, 1886. Vice-President Wickson occupied the chair, and explained that the meeting had been called for the special purpose of examining the new Zeiss Photo-micrographic camera and stand.

Dr. Ferrer then briefly described the salient points of the instrument. A special microscope stand is provided, hav-

ing an unusually short and thick body-tube. It rests upon a large and firm adjustable tripod foot, and is fitted with a roomy mechanical stage, and with a sub-stage for carrying an Abbe's condenser or other accessories. The coarse adjustment is made by the usual rack and pinion. The camera itself is of very large size, permitting a range of nearly eight feet from the object, when fully extended. Its front bears a metal sleeve or nose-piece, with racks out to the body-tube of the microscope, forming a light-tight connection with it. In addition to ordinary ground-glass focusing plate, one of clear plate-glass is provided, furnished with a focusing-glass sliding vertically between brass guides. By this means an exceedingly delicate adjustment can be obtained. The fine adjustment is regulated by a milled head attached to a long brass rod, which latter translates the movement to the fine adjustment micrometer screw by means of two very ingenious universal joints. The illumination used on this occasion was a very large oil lamp, with a bull's-eye condenser interposed between it and the Abbe condenser in the sub-stage, and for work with low powers Dr. Ferrer stated that he had found the light fairly satisfactory, but he hoped to improve upon it by using the electric light in some way, and several patterns of incandescent lamps were now being tested by him. He also stated that he had ordered the best obtainable heliostat, for photographing with sunlight, and he therefore hoped soon to be in a position to do excellent work with high amplifications. Hitherto he had dispensed with the oculars, using only the objectives and a specially constructed amplifier, but he intended very soon to make a thorough test of the new "projection" oculars of Zeiss, in combination with the apochromatic objectives of the same maker.

After those present had duly inspected the details of the exquisitely finished instrument, a demonstration of its practical working was given by taking a photograph of a stained section of the eye in the embryo of the calf. The plate was given an exposure of eight minutes and, notwithstanding the unfavorable conditions caused by the crowded room, the resulting negative was, upon development, found to be excellent. A number of prints from negatives of other subjects were handed around and were examined with much interest. Several histological preparations were also shown under the microscope, with a novel monochromatic illumination.

A SERIES of researches by cultivation and inoculation, led Eiselsberg to the following results, which agree with those of Ogston, Rosenbach and Passet. *Centralblatt f. Chirurgie.*

1. In the blood of healthy persons there are no micro-organisms, those forms described by Hofmann as micro-organisms being products of the destruction of blood corpuscles.

2. In the blood of those suffering from septicemia or pyemia are found mostly pus cocci (*eiterkokken*), chiefly the staphylococcus pyogenes albus, sometimes the staphylococcus pyogenes aureus and streptococcus, or the three kinds mingled.

3. In the blood of erysipelas patients, the specific pus coccus does not appear, thus agreeing with the experience of Fehleisen.

4. In the blood of patients with fever, who are suffering from wounds, but with no connection between the two, there are found no pus cocci.

5. In the closed pus cavities (phlegmons, carbuncles, osteo-myelitic abscesses, empyema, tonsillar abscesses, etc.), there always appears the various kinds of pus cocci, singly or mixed.

6. In blisters he found no cocci, nor in ovarian cysts, or echinococcus cysts, or cysto-fibroma. When Eiselsberg failed to find cocci in the blood of septicemia or pyemia, he ascribed it to the circumstance that not every drop of the blood contained them.

Gleanings.

THE TREATMENT OF VARICOSE VEINS.—IN THE MEDICAL NEWS for September 11, 1886, we directed attention to the operation of excision in the treatment of varicose veins. The favorable opinion of this operation was supported by a letter from Dr. S. J. Radcliffe, published in THE NEWS for September 25th, in which a report was given of Mr. Clutton's success by this method in St. Thomas' Hospital, London. We may add that Fry has also employed this method with great success, and has recorded six such cases in the *British Medical Journal*, for September 5, 1885; while Le Brun reports, in the *Journal Méd. de Bruxelles*, for March

and April, 1885, twenty-one such operations without a single mishap. These results certainly indicate that excision for varicose veins is an excellent operation, and justify the opinion that it is simple, safe, and almost sure to effect a cure.

The plan of injecting into varicose veins various coagulating substances still holds its ground, however, and may be rationally adopted in cases in which either the patient or the surgeon does not wish to face a cutting operation. Very recently, Stevenson, in *The Lancet*, for October 23, 1886, reports eight cases treated with perfectly satisfactory results by injection of pure carbolic acid, as recommended by Watson Cheyne. The circulation is controlled by the Esmarch tube, applied round the thigh, while the patient stands, first with a few turns just tight enough to occlude the veins, and then firmly enough to cut off all the circulation. One minim of pure carbolic acid is then injected at a number of points, about an inch and a half apart, and cotton and collodion are applied over the punctures. The Esmarch tube is not removed until fifteen minutes after the completion of the last injection, and then the circulation is permitted to return only by very slow degrees. This is to avoid the danger of an embolus being swept into the general blood-vessel system. In addition, the patient is required to keep his bed for about a week.

By this means excellent results have been obtained in the treatment of varicose veins, although abscesses sometimes form at the seat of injection. Stevenson found this to occur in about ten per cent. of the punctures, but the abscesses were not larger than a pea, and they were painless.

In the *Medical Record*, for December 12, 1885, Weber reported a successful treatment of varicosity of the saphenous vein by means of injection of four drops of pure carbolic acid at four different points, while the vein was compressed above and below the part injected until a coagulum was formed in it.

It appears, then, that the operation of excision of varicose veins has not entirely supplanted the method of coagulating injections, and it probably never will do so, since circumstances altogether unconnected with timidity on the part of the patient, or conversation on the part of the surgeon, must not rarely debar the former procedure. Such being the case, we think the injection of carbolic acid, in the prudent manner suggested by Cheyne, is one of the

safest and best ways of treating this frequent and troublesome disorder.—*Phila. Med. News.*

VALUE OF COCA PREPARATIONS.—Surgeon-Major H. Lieberman, of Paris, officer of the Legion of Honor, etc., contributes a note on this subject to the *N. Y. Med. Monthly*, in which he speaks especially of *Vin Coca Mariani*. During his long career as a military surgeon, he says he has used this preparation with the greatest success in “profound anæmia,” resulting from arduous campaigns in tropical countries, and in gastro-intestinal irritation, with loss of appetite and dyspepsia, which frequently accompany this condition. Two or three wine-glasses a day of *Vin Mariani* relieved the debility wonderfully and rapidly, restoring the appetite and removing dyspepsia. He thinks this wine vastly superior to wine of quinine, since the latter augments the gastro-intestinal irritation, interferes with alimentation, retards repair, and thereby aggravates the anæmia. Also in chronic alcoholism following the abuse of absinthe and strong liquors, Mariani’s wine, while primarily producing some cerebral stimulation, exercises a predominant sedative effect upon the nervous system. He has seen hardened drunkards give up their pernicious habits and return to a normal condition under this treatment. He has also employed Mariani’s wine successfully in tobacco habit. A few small swallows replaced both pipes and cigars, since the patients unconsciously receive the cerebral stimulation sought for. In chronic bronchitis, and even in pulmonary phthisis, Mariani’s wine increases the appetite and diminishes the cough. For the cough he gives a wine-glassful, mixed with a tumbler of spring water. In convalescence from typhoid fever, especially where the gastric irritability would not tolerate even Bordeaux wine, he has used this wine with great success. In short, Dr. Lieberman believes Mariani’s wine is a most potent help to the military surgeon to combat with sickness, infirmities and vicious habits engendered by campaigning and the hardships of military life. Whenever any other preparations of coca were used, the intended results were not produced; even bad effects and complications were noticed.

ACTINOMYCOSIS HOMINIS.—Actinomycosis is a progressive inflammatory affection, set up by a certain fungus—the actinomyces; resulting in the formation of granulations and fibrous tissue, and in suppuration; attacking human beings,

cattle and swine; and communicable to cattle by inoculation. The fungus occurs as small globular masses, commonly about the size of a millet-seed, usually of a pale yellow color, but at times white, brown, green or speckled, with a surface closely covered with palisade-like rows of clubbed bodies, which give it a mulberry-like appearance. If seated in the tissues, each portion of fungus is surrounded by inflammatory products, forming a nodule, which in its structure may exactly resemble a tubercular granulation. In the January number of *The American Journal of the Medical Sciences*, Dr. E. Markham Skerritt gives an instructive *résumé* of our knowledge of the disease, and reports a case in which the lung was previously attacked, and which presented certain features of special interest.

The etiology of the disease is still obscure. The micro-organism has never been recognized outside the body; and, apart from inoculation experiments, no direct relationship between the disease as occurring in the lower animals and as met with in man has been established. There is strong evidence to associate the occurrence of the disease with the presence of carious teeth or dental fistulæ. In most of the recorded cases it is noted that the teeth were defective, and in several the malady originated at the site of decayed teeth or of a diseased portion of the jaw. The fungus may enter the body by the mouth and pharynx, the respiratory passages, and the digestive tract.

Dr. Skerritt points out that, whatever the primary seat of the disease, in any case of actinomycosis generalization of the growth by embolism may occur, and this not uncommonly after the tumor has long had a comparatively inactive local existence. The dissemination of the fungus will be accompanied by irregularly recurrent rigors and the usual symptoms of hectic.

ACTION OF DRUGS IN ALBUMINURIA.—An interesting communication on this subject was read in the Section of Therapeutics at the Brighton meeting of the British Medical Association by Dr. Robert Saundby. He pointed out the difficulty of foretelling what action drugs might possess on the renal processes in genuine albuminuria. The number of drugs with which he experimented was very large. The following are his chief conclusions: Alkalies used in the form of diluents—such as a quart of bitartrate of potash imperial (one ounce and a half to a pint), daily—gave distinctly

favorable results in cases of chronic, persistent and copious albuminuria. He has employed also citrate of lithia, bicarbonate of potash, ammonia benzoate and bicarbonate of soda, and includes them in the favorable opinion. The beneficial effect was not due to the formation of alkali-albumen; for Esbach's fluid, which was the method employed, precipitates that form of albumen. Tannate of soda, or rather an ounce mixture of tannic acid and bicarbonate of soda, of each ten grains, with fifteen minims of glycerine, also gave good results. In one case the albuminuria was diminished nearly one half. Nitro-glycerine and fuchsin appeared to have no good effect. Digitalis and other heart tonics—caffeine, strophanthus, sulphate of sparteine, iron salts, acetate sulphate and perchloride—increase the amount of albumen passed. Apocynum was not found to have any diuretic action in drachm doses of the tincture, and it increased the albumen in two cases. Turpentine had no beneficial effect, though hæmaturia followed its employment in one minim doses. Doses of the 1000th of a grain of bichloride of mercury were also inoperative.—*Lancet*.

CONGENITAL HEREDITARY ATONIC DYSPEPSIA.—During a practice of twenty years, I have prescribed Lactopeptine to patients of all ages, and have never been disappointed in its action when indicated. But I desire to speak in particular of its action in a case of congenital hereditary atonic dyspepsia—in an infant, to whom I began to administer this remedy on the third day after birth. Mrs. H. L. S., Langside, Miss., was delivered of a male child in whom there was manifested well-marked symptoms of atonic dyspepsia. The mother had been a victim of dyspepsia from girlhood, and had inherited the malady from her mother.

The infant was put to the breast a few hours after birth, and nursed readily; but almost immediately rejected the milk. Repeated trials all resulted in vomiting, followed by exhaustion. Other articles of food were tried, including cow's milk, etc., without improvement. The child was in great danger of starvation. On the third day, I began the administration of Lactopeptine. The effect was immediate and almost miraculous. I ordered one-sixteenth of the adult dose to be dissolved in about two ounces of breast milk (drawn from a robust, healthy wet-nurse,) and administered every two and a half hours. There was no more rejection of milk—except the usual vomiting of curdled milk,

to relieve the crowded state of the stomach, which occurred occasionally, after the first ten days. Condensed milk, cow's milk (properly diluted and sweetened), Mellin's food, boiled bread, (pap), were, after a while, substituted for breast milk, but always with Lactopeptine. A steady improvement was manifest from the beginning, and kept up during the first dentition, which process was gone through with in a most satisfactory manner. No untoward diarrhœa or intestinal disturbance characterized this period; and, at ten months, the child was virtually cured of its dyspepsia, and could eat and digest ordinary food, such as children of that age may do in good health. The parents of the child believe firmly (as I do) that Lactopeptine saved their infant.

In cholera infantum, in diarrhœa, and in all of the disturbances of the alimentary canal during dentition and early infant life, I find Lactopeptine an ever-effective and reliable remedy. In adult dyspepsia, all are now familiar with its beneficial effects; but I should be glad if the profession would be induced to try it in the vomitings, diarrhœas and dyspepsias of infancy. I recall several babies whose lives, I believe, I could have saved had I known, ten years ago, what I do now of the ready adaptability of Lactopeptine in infants' ailments.—*R. Walker Beers, M. D., in the Medical Brief.*

PERMANGANATE OF POTASSIUM AS AN EMMENAGOGUE.—The *New England Med. Monthly* quotes a letter from Dr. Benjamin Marshall to the *Therapeutic Gazette*, in which he states his conclusions as to the results obtained from the administration of the above drug in amenorrhea as follows:

1. It acts with certainty in about seventy-five per cent. of selected cases.
2. It may be given at any time, but preferably one or two hours after eating, as it is apt to sicken the stomach.
3. In most cases it produces an exhilaration of spirits.
4. It has a decided toxic effect.
5. It will become an indispensable therapeutic agent. * * *

For our own sakes we are sorry that our trial of the permanganate did not result in conclusions anything like the above, providing they are results which can be infallibly obtained in seventy per cent. of selected cases of amenorrhea, for in that case we have missed the satisfaction of having successfully treated a great many cases of that troublesome disease. We distinctly remember with what joy we hailed

the announcement some three or four years ago, that an almost certain remedy had been discovered for some of the menstrual troubles, in the permanganate of potassium. The consequence was that any case of amenorrhea which was met with, not *selected*, was given that preparation, and in *all* the result was absolutely *nil*, so far as we were capable of judging, it appearing to have no action whatever upon the system, other than that of causing some slight disturbance of the stomach. It was, therefore, soon abandoned, but it may be that the cases treated just chanced to be included in that thirty per cent. which are not benefited by it. Our interest being awakened in the matter, however, various physicians were asked as to the results obtained with it, and to the best of our remembrance, there were none who had been able to attribute any positive good results to its use. We state the facts observed by us in the matter, as it is only by comparing many results that any certainty can be attained as to the benefit derived from the administration of a drug, and would like to hear from others who have made use of it.

ANTISEPTIC TREATMENT IN OBSTETRICS.—The following is a brief summary of the rules enforced in Prof. Spaeth's Obstetric Clinic, in Vienna, and contains many valuable hints that may be followed in general private practice: "Before any vaginal examination, hands must be cleansed with soap and brush, and dipped in from one to five per cent. carbolic. Examining finger smeared with three per cent. carbolic vaseline. Neither before nor after examination is vaginal douche given, unless there be special ground therefor—from a bad discharge, etc. After a normal, spontaneous labor, the external genitals are washed with a one to two per cent. carbolic solution. After intra-urine manipulation, the uterus is washed out with one to two litres warm, one to two per cent. carbolic. After dead foetus (decomposed) or difficult instrumentation, an iodoform pencil, in addition, is used. Episiotomy wounds, if not deep enough for suture, are simply dusted with iodoform, and similarly slight perineal ruptures. During puerperium, unless especially ordered, neither vaginal injections nor antiseptic compresses. As soon as a lying-in woman has elevation of temperature, she is isolated. Each ward is carefully disinfected when empty. In case of rise of temperature, if there are wounds of the outer genitals, vaginal injections,

one to two per cent. carbolic; if lochia are bad-smelling, intra-uterine douche twice daily, or else iodoform pencils. Douche is stopped as soon as lochia become normal. Continuous irrigation never used. Iodoform freely on all wounded surfaces.—*Am. Journal Obstetrics.*

SUCCESSFUL PASSAGE OF A SAFETY-PIN THROUGH THE INTESTINES.—Dr. John C. Owens, of Plainfield, Ill., writes that, having just read an article in *The Record*, from the pen of Dr. Reed, on the subject of foreign bodies in the intestines, there is recalled to his mind the case of an eighteen months old child whom he was called to see some two years since. The little patient had not been well for some time; would seem to suffer pain at times, but as the source of the trouble could not be detected, the mother thought she might be mistaken. "The child grew worse, and I was sent for. On reaching the house, which was several miles in the country, I was informed that the child, a short time before my arrival, had cried out with pain while having a movement from the bowels. On examining the passage, great was the surprise of the mother to find a safety-pin about one inch in length, opened. Just when it had been swallowed was not known, but the mother thought a month or six weeks before, as the child had not seemed well during that time. No unpleasant symptoms followed the passage of the pin. To me it seems a remarkable case, from the fact that the child must have removed the pin from its clothing and swallowed it; and one could hardly imagine that a triangular object of that size, with a sharp point, could make its way through the intestinal tract of so small a child without lodging at some point, or causing more serious symptoms."

BEFORE ATTEMPTING TO REMOVE FOREIGN BODIES from any of the cavities of the body which are covered with mucous membrane, where possible, always thoroughly anæsthetize the part with a solution of cocaine. This not only relieves the subsequent manipulations of pain, but the effect of cocaine upon the mucous membrane, even when the latter is hypertrophied, is to greatly relax it, and to retract it upon the tissues which it covers. Mr. Bryson Delavan has already applied the knowledge of this fact to the removal of foreign bodies from the nasal cavity, and Dr. E. J. Moure, of Bordeaux, has made use of it in catheterization and insufflation of the Eustachian tubes. In a note to *La France Médicale*,

Dr. Moure states that in those cases of subacute inflammation of the tubes, where the membrane is covered with a thick, viscid, catarrhal exudation which prevents the admission of air to the middle ear, resisting all attempts at insufflation by ordinary means, he finds no difficulty whatever after the application of a ten per cent. solution of cocaine. This is applied first to the nasal conduit, being carried a few moments later to the level of the nasopharyngeal cavity, and thence, after the lapse of a few moments more, as far as possible into the tubes.

DISINFECTION AND DEODORIZATION OF THE HANDS.—To get rid, instantaneously and completely, of the persistent and exceedingly disagreeable odor which clings to the hands after making certain autopsies and examinations, in spite of frequent washings and the use of pungent drugs, the following suggestion of Dr. Danlos (of the Hospital Tenon) works like a charm: Scrub the hands thoroughly with soap and warm water to get rid of all fatty matter. Have ready an aqueous solution of permanganate of potassium of sufficient strength (anywhere from 1:200 to 1:20), and into this plunge the hands and rub them well, taking care that the solution gets under and around the nails. This will stain the skin a dark brown, varying in intensity according to the strength of the permanganate solution. The stain is removed and the operation completed by thrusting the hands into a solution of hyposulphite of sodium (the commercial solution, 1:16, may be used), and rinsing in clear water. The odor of the most foetid of morbid products—that from uterine cancer, for instance—is instantaneously destroyed by this process, as I can testify. I will add that I have long used the method, not merely for cleansing the hands, but for cleaning and whitening sponges.

CONTAGION OF TETANUS?—At the Société de Chirurgie an interesting paper, followed by discussion, was read by M. Larger, which seemed to show clearly that there were good grounds for believing in the contagiousness of tetanus. Four patients, who had been treated in the Colmar Hospital, were seized with tetanus at different intervals, and all died. The nature and severity of the wounds varied in each case from an amputation to a simple incised wound. The only thing common to them all was that the cases had all occupied contiguous beds. Tetanus is rare at Colmar. None of the patients had had anything to do with horses. A veterinary

surgeon, M. Cagnat, had practiced castration on horses for twenty-five years without a single case of tetanus. At the end of 1884 he removed, with an écraseur, a tumor of the testicle in a horse; the animal died of tetanus. Operations for castration practiced with the same écraseur on five horses afterward were followed by tetanus and death in all the animals. The écraseur was then submitted to disinfection by being heated to a high temperature. The instrument was afterward used for fresh castrations, and without tetanus resulting in any of the animals operated on.—*Lancet*.

THE TREATMENT OF WHOOPING-COUGH.—In his summary of treatment, in a clinical lecture delivered at the Philadelphia Hospital (*Medical News*), Dr. John M. Keating emphasizes the value of the steam spray and atomization of medicated solutions, among which he ascribes value to Dobell's solution, eucalyptol, and thymol. With the bichloride he advises caution. Corrosive sublimate, which is now used for almost everything, he says, has also been applied here in the form of the spray. He remarks that it is a dangerous drug to put into the hands of an inexperienced person, and, as we have so many other useful remedies for this affection, he thinks it wise to avoid the use of corrosive sublimate. He has used listerine extensively with good results in the treatment of whooping-cough. He employs it in the strength of one drachm to two ounces of water, with an ordinary hand atomizer, directs the nurse to apply it twelve or more times a day, and finds that little children, even babies, do not object to it. He adds to it tincture of belladonna, potassium carbonate, or ammonium bromide, as the case may demand. Chloride of ammonium he also finds of great service in the form of spray.—*New York Medical Journal*.

MEMORIZING DOSES.—Dr. G. A. Wiggins, of Philadelphia (*Med. World*, August, 1886), gives some general rules, with their exceptions, which are thoroughly reliable:

1. The dose of all infusions is 1 to 2 ozs., except infusion of digitalis, which is 2 to 4 drs.
2. Dose of all poisonous tinctures is 5 to 20 minims, except tincture of aconite, which is 1 to 5.
3. Dose of all wines is from $\frac{1}{2}$ to 1 fl. dr., except wine of opium, which is 5 to 15 minims.
4. Of all poisonous solid extracts you can give $\frac{1}{2}$ gr., except extract of calabar bean, which is $\frac{1}{16}$ to $\frac{1}{4}$ gr.

5. Dose of all dilute acids is from 5 to 20 minims, except dilute hydrocyanic acid, which is 2 to 8 minims.
6. Dose of all aquæ is from 1 to 2 ozs., except aqua laurocerasus and aqua ammonia, which are 10 to 30 minims.
7. Of all syrups, you can give one drachm.
8. Dose of all mixtures is from $\frac{1}{2}$ to 1 fl. oz.
9. Dose of all spirits is from $\frac{1}{2}$ to 1 fl. dr.
10. Dose of all essential oils is from 1 to 5 minims.

COCAINE ALREADY DISPLACED.—The *London Lancet* describes a new local anesthetic, which comes from Port Germain, in South Australia, and is described by Dr. John Reid. Drumine, the name of this alkaloid, is prepared from the milky juice of *euphorbia Drummondii*, and is claimed to differ from cocaine, inasmuch as it has only a purely sensory paralyzing effect, while cocaine acts both on the sensory and motor nerves. It was injected into the legs of cats, and caused a general dullness, and a marked impairment of all forms of sensibility. The anesthesia was most marked when it was placed on the tongue, nostrils or hand. It has no action on the pupil, and no constitutional effect is produced by small doses internally. In quantities of four minims of a four per cent. solution it has been successfully used in sciatica by subcutaneous injections. Experiments with the drug are as yet very imperfect, but a great future is predicted for it in nervous and cerebral diseases.

PASTEUR'S latest report of inoculation for rabies, made to the *Académie de Médecine*, November 2d, announces that he had inoculated 2,490 persons, of whom 1,750 were of France and Algeria; of these 1,750 cases, 10, or 1 in 170 failed, died of rabies. The average number of deaths from rabies annually in Paris for many years has been 12; last year it was only 3, of which 1 had been inoculated, but not by the "intensive" method. Pasteur now finds it necessary in bad cases—those in which the face has been seriously bitten—to use more powerful virus and to more rapidly repeat the inoculations. He attributes the failures of Dr. Fitch, in Vienna, to his not adopting this more intense and rapid method.—*The Sanitarian*.

AFRAID TO THINK.—Probably some of your readers are familiar with the story of the ancient spinster who, on asking a rising laryngologist how far he could see, was consid-

erably discomposed by his prompt reply, "Far enough, madam, to see that you are sitting on a cane-bottomed chair." A companion story to the above was told me a few days since; and, as it has the advantage of being true, I will give it for the amusement of your readers. In the out-patient department of one of the largest metropolitan hospitals a boy was recently being ophthalmoscopically examined. One of the bystanders observed him to be trembling from head to foot; and, when it came his turn to have a look at the fundus, asked the boy kindly what ailed him. "Oh, sir," said the boy, "I'm afraid to think anything." "Well," said his examiner, "I don't see much brains. I don't think you could think much if you tried to"—a rejoinder which apparently consoled the boy not a little.—*London Correspondent to Medical Record.*

HYOSCYAMINE IN DELIRIUM TREMENS.—Dr. F. Tipton, of Selma, Ala., has had most satisfactory results with Merck's hyoscyamine, in doses of 1-20 grain hypodermically administered, in the treatment of all the distressing symptoms of delirium tremens. He writes: "It has never yet failed me, nor have I experienced any bad results from this drug in these doses. I treat all cases of delirium tremens with this drug as soon as chloral and the bromides fail, and they all get well rapidly. I use the following formula, which I obtained from Dr. P. Brice, of the Alabama State Insane Asylum:

Ry	Hyoscyamin, Merck's,	. . . . .	gr. j
	Alcoholis,	. . . . .	3 j
	Aquæ,	. . . . .	3 j

M. Sig.—Inject from five to ten minims for one injection."

SIMON'S METHOD OUTDONE.—The capabilities of rectal exploration were thought to have been exhausted, when Simon, after stretching the sphincter ani, introduced the whole hand and part of the forearm into the rectum, and was thereby enabled to examine the pelvic organs very thoroughly; but a case is reported in the *British Medical Journal*, in which, for the purpose of removing a large impacted mass of fecal matter far up the colon, the upper extremity was thrust into the bowel as far as the axilla, to permit which the sphincter ani was cut through, the incision extending back to the coccyx. The line had better be drawn at the axilla in this matter, as there is no telling

where it might otherwise stop, and some conservative operator be attempting to remove a cancer of the pyloric end of the stomach by way of the rectum and small intestines.

WHISKY BY THE PAILFUL.—A wedding celebration near Lancaster recently came to a tragic end in the death of one of the participants. After the wedding a party of young men serenaded the newly-married couple. The groom showed his generous disposition by giving them whisky by the pailful. A tin-cup was furnished from which to drink.

The deceased is said to have drunk two pints of the beverage. He soon became unconscious from its effects, and remained so until he died. He was a native of Harrisburg, and a pensioner of the late war. He leaves a wife and daughter. The coroner's jury found that he died from an overdose of alcoholic stimulants.

PROF. DA COSTA continues to derive good results by the administration of hyoscyamine in cases of *chorea* which have resisted other treatment. In a recent case, a child aged five years, it was given in $\frac{1}{300}$ grain doses, *ter die*, to be increased.

Book Notices.

MANUAL OF OPERATIVE SURGERY. By Joseph D. Bryant, M.D., Professor of Anatomy and Clinical Surgery, and Associate Professor of Orthopedic Surgery, Bellevue Hospital Medical College; Visiting Surgeon to Bellevue Hospital, etc. With about 800 Illustrations. 8vo. Pp. 530. Cloth. New York: D. Appleton & Co.; Cincinnati: R. Clarke & Co.

Dr. Bryant, the author of the work before us, sets out with a peculiar definition of operative surgery. We quote: "Operative surgery treats of the manual procedures necessary to properly accomplish the surgical object in view. The operation to be done is the execution of a verdict that is, or should be, based upon surgical principles and laws, in a sense comparable to legal proceedings in the courts of justice. The surgeon in most instances, however, holds the threefold position of judge, jury and executioner. It is, therefore, very essential for the welfare of the patient that he properly interpret the surgical laws and principles relat-

ing to the case, in order that the verdict to follow may be just, and its execution cast no opprobrium upon himself or his profession. To be able to operate understandingly, requires not only a thorough knowledge of the principles of surgery, but a fair knowledge of the ways and means of accomplishing the desired purpose."

This work is designed to be precisely what its title indicates—a work upon operative surgery. As regards the principles of surgery proper, the reader is referred to the many other works upon that subject. Its aim, therefore, is practical.

The author has especially prepared the volume for the use of students, having frequently been urged on the part of those whom he has instructed in operative surgery during the past few years to make a book based somewhat on the plan he has employed in teaching this subject. Of course such a book will be of great service to practitioners to consult when preparing to perform any surgical operation, since its instruction is limited to operative proceedings.

We do not feel like laying aside the work without quoting the *facts* which the author states should be ascertained previous to beginning an operation of any magnitude. They are important, and we have no doubt but that we will render a service to many young surgeons by copying them. The facts to be first ascertained are as follows:

"First. The physical condition of the heart, lungs, kidneys, brain and great vessels.

"Second. If there be an acute, surgical or other complication of the essential organs of the body, joints, serous cavities, etc.

"Third. If the patient be suffering from shock.

"Fourth. If the patient be anemic or scorbutic. If he have syphilis, phthisis, epilepsy, diabetes, or be in danger of delirium tremens.

"Fifth. If he be willing and ready for the operation."

As the author very correctly observes, upon the healthy condition of the heart, lungs, brain, etc., may depend the expediency of giving an anesthetic, and the choice between them. If the kidneys be diseased, it may be inadvisable to operate upon the urethra or bladder, or even to give an anesthetic; if the great vessels be dilated or atheromatous, much discretion must be employed in its selection and administration. It should not be forgotten, however, that the mental emotion and physical suffering attendant upon an

operation, when performed without anesthesia, may be of greater moment than with its use.

The portable size of the volume renders the work highly convenient for the use of students. Leaving out all discussions upon the principles of surgery, sufficient space is left to give detailed descriptions of operations without making the book cumbersome and inconvenient to handle.

A TEXT-BOOK OF MEDICINE FOR STUDENTS AND PRACTITIONERS. By Dr. Adolf Strümpell, formerly Professor and Director of the Medical Polyclinic at the University of Leipsic. Translated by Permission from the Second and Third German Editions, by Herman F. Vickery, A.B., M.D., Physician to Out-Patients, Massachusetts General Hospital, etc., and Philip Coombs Knapp, A.M., M.D., Physician to Out-Patients with Diseases of the Nervous System, Boston City Hospital. With Editorial Notes by Frederick C. Shattuc, A.M., M.D., Visiting Physician to the Massachusetts General Hospital, and to the House of the Good Samaritan. With 111 Illustrations. Very Large Octavo. Cloth. Pp. 981. Price, \$6.00. New York: D. Appleton & Co.; Cincinnati: R. Clarke & Co. 1887.

This is a German work which has met with great success in Germany, having, in that country, in a very short time, reached a third edition. The translation was made from the second German edition. But after it had been completed, the translators, learning that a third edition had appeared, recalled their manuscript from the publishers and added to it all changes that the author had made in preparing a new edition.

It is conceded by every one that the Germans, in their works upon the principles and practice of medicine, more than other writers, give fuller and more correct descriptions of the pathology of diseases. In fact, it is only in their works that it is possible to obtain a satisfactory account of the morbid changes wrought by disease. In a recent volume by one of their writers on practice, the reader is sure to find an elaborate and correct detail of the morbid anatomy and physiology of pathological action.

The reader will better understand the scope of the work by quoting a description of it by the author: "I have made an attempt to give an account of our present knowledge in

the field of the special pathology and treatment of internal diseases. . . . While everything hypothetical has been wholly omitted, or only briefly referred to, I have tried, on the other hand, not only to enumerate the facts of clinical experience with sufficient accuracy, but also, and especially, to make the reader comprehend the development and the internal connection of the different morbid phenomena by constantly referring to the data of general pathological and anatomical research. . . . Although in the composition of this text-book I have, of course, made very great use of the later literature of medicine, still the experienced reader will recognize in not a few places the results of the author's own experience and observation."

We have no doubt but that the work will meet with very great success in this country, where there are so many physicians who admire the German school of medicine, which undoubtedly is a school of close observation and of accuracy—a school of scientific means in study, tracing causes in observing facts. While it may not be as practical as some American works, yet it will be found to be more scientific, developing treatment from therapeutics and pathology.

The sections on the etiology of infectious diseases, especially typhoid fever, cholera, diphtheria, etc., have been written on the basis of the later work of Koch and his pupils. And in other parts it will be observed that the author has adapted the work to the standpoint of the most recent investigators. In no other work, which gives attention to them, are diseases of the nervous system treated so fully, concisely and clearly.

In regard to the nomenclature of physical signs in diseases of the lungs, the translators have departed somewhat from the original, in order to have the nomenclature conform to that proposed at the meeting of the American Medical Association in May, 1885, by the late Dr. Austin Flint, chairman of a committee appointed to prepare such a nomenclature at the International Medical Congress in 1881.

We cordially recommend the work to the profession of this country. And especially do we recommend it to students, who ought during their studentship address themselves to the study of the pathology of diseases. Considering the beautiful paper on which it is printed, the substantial binding, the small but distinct and easily read type, the large size of the pages, etc., it is undoubtedly the cheapest medical work with which we are acquainted.

Editorial.

A NEW VOLUME.—With the present number the MEDICAL NEWS begins its *twentieth volume*. When it is considered that, of the very many medical journals published in the United States—between one and two hundred—there are only a very few older than it, it can very properly be claimed for it that it is an old medical journal. And further, we think that it can be claimed for it that it has been successful. No medical journal, or periodical of any kind, could be sustained for nineteen years and begin its *twentieth year*—at no time having missed the publication of a single number—unless it had met with general approval, and, as a consequence, secured a good share of patronage. A worthy medical journal is not taken by every physician who esteems it, no more than every medical man is patronized by all who regard him as meriting patronage; but a medical journal, like a practitioner of medicine, in order to live, must meet with the general approval of those from whom it expects to obtain its patronage. Not merely those who patronize a physician must consider him a good doctor, but the community generally among whom he resides must regard him as such, if he succeeds in becoming a successful practitioner; so a medical journal must meet with the indorsement of all intelligent and reading physicians in order to be successful.

Not a few medical journals, at this time, are not dependent for support upon subscriptions collected from subscribers. Many drug establishments issue journals, made up from clippings from medical periodicals and from books, which they send out by the thousands, and although an ostensible subscription price is printed upon their title-pages, yet it is not expected that any one will pay it. The publishers of these sheets are very well satisfied, and even gratified, if a physician requests that they be sent to him. Sometimes a drug-house, to give his publication more the appearance of a regular medical journal, that he may derive the more benefit from it as an advertising medium, will pay a medical man of some prominence in the profession to write an article for it, or, if he is connected with a medical college, will pay him a trifle to permit some of his lectures to be printed in it. Such medical sheets are injurious both to the regular medical journals and to the profession. Not

long since, on seeing in an exchange a report of a lecture by an eminent Eastern professor, we copied a portion of it into our selected matter in making up a number of the MEDICAL NEWS. As we found it among the selected articles in the journal from which we made the copy, and no mention made as to the source from which it originated, we were not able to attach any credit to it. Soon after the number of the NEWS containing the article was issued, we received a very insulting letter from the owners of a drug-sheet, that we did not before know had an existence, who claimed that the lecture had originally appeared in their publication, from which we had purloined it without giving their missive credit. The whole letter exhibited on the part of the writer a low estimate of the medical profession. Without sense, and destitute of courtesy, he seemed to think that physicians occupied no higher moral plane than himself. Now, if respectable medical journals should be destroyed through want of patronage, by the sheets issued gratis by such drug firms, what can be expected in the way of professional elevation from such periodical medical literature? We are sorry to say that some physicians take such stuff to the exclusion of a medical journal, and please themselves with the notion that, in doing so, they are taking a medical journal.

Since the MEDICAL NEWS, with the beginning of the year 1868, started forth as a medical journal, and became a competitor with the journals that were then published for the favor of the profession, very many other medical periodicals have entered upon the race, which, after being published for a few years, were compelled to abandon it. Not a few of these short-lived journals were of a high order, and merited a better fate—but fortune it seems was against them, and they “had to submit to the inevitable.” No doubt but that the failure of some was due to the fact that, not “filling a want,” they received no patronage from the start, though possessing very considerable merit. But we know that some of these journals, which were compelled to suspend, had to do it, not because they did not have subscribers, but because the subscribers did not pay as they had promised to do. Prof. Parvin, now of Philadelphia, several years ago, while residing in Indianapolis, began a medical journal there of a very high order. Physicians throughout Indiana, and from other States, sent their names to him as subscribers, but when bills were sent to them they did not remit. He continued, however, publishing the journal and

sending it to these delinquents, paying the printer from his own pocket month after month, hoping that after awhile these *fiends* would pay. He could not believe that physicians would subscribe for a medical journal and then not pay for it. But, neither bills sent nor editorial pleading availed; and finally, after sinking from four to five thousand dollars, he was compelled to suspend publication. It is indeed strange that an honorable and worthy man should have been thus treated, but such was the fact. During the almost two decades the MEDICAL NEWS has been printed, we have failed to collect many thousands of dollars honestly due, and which the delinquents could have paid us, and not have been a cent poorer. These same persons undoubtedly become very indignant when they fail to receive payment for their services, and complain of bad treatment, and yet neglect to pay a trifle of two dollars a year for their medical journal. "Consistency, what a jewel!"

When we began to write we had expected to write but a short article, but almost unconsciously after beginning, we have kept on writing until we have written quite a lengthy article. Our subscribers, on receiving this number of the MEDICAL NEWS, will see that, after having published the journal for nineteen years, we propose to continue, of course, right along. We hope to furnish them this year with a better volume than we have ever before issued. It will be observed that the paper on which this number is printed is much superior to that we have before used. Advertisers undoubtedly will be pleased with the improved appearance given their advertisements in consequence of using the same quality of paper for advertisements as is employed for the body of the journal. Of course this improvement in the paper makes an increase of expense—even the postage will be materially higher on account of the increased weight of the journal. We propose not merely to improve the NEWS in appearance by using better paper, but we expect to improve it in the matter that will be issued from month to month. We will state, however, as regards this, the January number, that we have been compelled on account of various circumstances to get it out in considerable hurry. Our time has been very limited in preparing our editorial matter, and we have been compelled to let lie over a number of books for notice.

In conclusion, we will state that a number of subscribers, who are delinquent, will probably, after receiving this num-

ber, receive no further copies unless they pay up their subscriptions. We have been waiting long and patiently on not a few to remit, and unless they pay us, we can not wait longer and do justice to ourself. In fact, we have come to the conclusion that it is due us, and due to those honest and honorable men that do pay, due also to other medical journals in the way of protection, and to the delinquents themselves, to publish the names of those parties who have taken the MEDICAL NEWS for some years and have not paid a cent for it, and, from all appearances, would continue to take forever, if sent to them forever, and would not pay a cent.

If those who are owing do not receive any future issues after receiving the January number, they will know the reason.

RECENT MEDICAL INFORMATION.—There are several medical journals in the United States which display upon their title page the name of "MEDICAL NEWS." Now and then an article, in *our* MEDICAL NEWS, in consequence of an oversight may find place among the selected articles, which has been published in another medical journal, without due credit having been given to the journal from which it was taken; but, at no time, has there ever appeared "a very interesting paper, but its matter stale, for the reason that, in every essential particular, the facts appeared in a recent issue of the daily *St. Louis Republican* with many embellishments." Nor can it be charged that *our* MEDICAL NEWS has shown a "fondness for stale matter by the publication of the Gross operation of removal of calculus from kidney, which had first appeared in the *St. Louis Globe Democrat*, written up in a detailed technical manner some weeks before."

The *Weekly Medical Review*, of St. Louis, in its issue of January 1st, charges the *Medical News* with *acts* such as we mention, but it does not say which one of the journals, having that name, is referred to—leaving it to its readers to draw upon their imaginations. We do not believe that the *Philadelphia Medical News*, published by the famous publishers of medical books, Lea Brothers & Co., is ever so hard up for *original* matter as to publish articles as *original* which had first appeared in a newspaper. If there ever was an occurrence of the kind traceable to it, we feel sure that it will be found that it was imposed upon. It would be a

psychical phenomenon, most difficult to understand, for it to display such "a fondness for stale matter" as to publish articles, as though especially contributed to its pages, which had been printed in newspapers, when it possesses a corps of collaborators distinguished for their ability. As the *sharpest* men are sometimes imposed upon, so it would not be remarkable if, now and then, a medical journal would have a fraud perpetrated upon it by having an article sent to it, as original, which had appeared at sometime in a newspaper.

Now, as neither the CINCINNATI MEDICAL NEWS nor the *Philadelphia Medical News* has been publishing stale articles, as original contributions, which had appeared in a St. Louis newspaper, we would be pleased to be informed what *Medical News* it is which has been exhibiting its enterprise in this manner. As the newspaper, in each instance, was a St. Louis paper from which the "News" found an article to fill up its "Original Department," we think it probable that the *Medical News* referred to by the *Review* has its home in St. Louis.

THE BEST QUALIFICATION FOR THE PRACTICE OF MEDICINE.—For a good many years, when we have been asked what is the best qualification for the practice of medicine, we have replied, *Good common sense*. Brilliant men, as they are termed, generally make poor practitioners of medicine. We have met with a number of illustrious surgeons, and not a few highly distinguished physicians; but the renown, in either instance, had not been obtained by success at the bedside. The results of the operations of the illustrious surgeons were generally unfavorable, while the distinguished physicians lost a larger per cent. of the cases treated by them than the average doctor.

To practice medicine with success, there is needed logical power, with ability to reason calmly and without prejudice. Of course, the physician must be acquainted with those departments of knowledge upon which the science of medicine is founded, as anatomy, physiology, pathology, etc.; but if he has not common sense enough to discriminate between cause and effect, and does not possess the ability to keep his mind free from prejudice while observing facts, no amount of knowledge obtained from books and lectures will make him a successful practitioner. We have again and again observed a medical man to become biased in his opinion, right at the

start, on examining a patient. Of course, under such circumstances, subsequent investigation would be unconsciously for the purpose of confirming the prejudged view, and not for the object of obtaining additional facts, which were to be added to those already observed, and to have due weight with them in making an unprejudiced deduction.

Some men, and they may be men of learning, are so constituted mentally that they are addicted to "hobbies." Such persons can not become good physicians. A "hobby" necessarily warps the reasoning powers; no logical conclusions can be made while it occupies the mind. The plainest facts will be overlooked. If the "hobby" is in regard to a remedy, that remedy will be persisted in in treatment, though it be manifest that the patient every day is becoming worse, and will die unless a change is made in the treatment. The biased view, in such cases, causes the physician to seek for the reason of the unfavorable progress in every direction but the right one. Let it become once impressed upon the mind that a certain course of treatment is the correct one in a certain disease, or class of diseases, and it is almost impossible to convince to the contrary. In the face of opposition the mind naturally seeks confirmatory evidence, instead of seeking for facts which may enlighten—proving or disproving without prejudice.

The mind is most remarkable in some of the phenomena it displays. It is as prone to prejudice "as the sparks are to fly upward." We are of the opinion that the mind of every one is more or less disposed to be biased. Even under circumstances where there can not be the slightest interest, there will be prejudice manifested, unless the individual exercises the greatest care. It is only in the logic of mathematics, probably, that there is no room for preconceived notions. Certainly, in the examination of a patient, there is nearly always a tendency to form a conclusion on the spot, followed by an effort to confirm, if possible, the correctness of this hasty view.

If we needed a physician to prescribe for ourself, we would never think for a moment of sending for a brilliant doctor. Of course, we value learning, and hold that the more one possesses of it the better; but we esteem common sense much more. Learning enlightens common sense, but it can not take its place. In Germany we have heard it stated that it is required that a person shall study medicine seven years after he has graduated in a university before he is per-

mitted to practice. But are German physicians more successful as practitioners than American practitioners? We do not believe they are. On the contrary, we are of the opinion that the physicians of this country, notwithstanding their brief time of study and little preliminary education generally, are the best doctors in the world. They display more practical ability and common sense in the treatment of diseases than do the physicians of any other country.

There are many institutions of learning; and whenever any of them shows a disposition to increase the standard of knowledge, as a requirement of graduation, it is applauded. We also take pleasure in assisting in commending all efforts to extend the educational qualifications of those proposing to become physicians. But we believe that if students, while attending schools of medicine, were trained in the exercise of common sense, much would be accomplished in making better physicians. Instruction should be given in medical colleges in regard to reasoning; the necessity of keeping the mind free from prejudice in observing facts and making deductions. It should be taught that there can be no correct conclusions, in any case, unless the utmost care be used not to give any fact, or any phenomenon of any kind, undue weight; that there must be the nicest discriminations between cause and effect, and that it is of the utmost necessity to distinguish between the phenomena of disease and the actions of medicine. The student should also be counseled against giving place to "hobbies." Many physicians have lost a patient by being disposed "to ride a hobby."

THE CASE OF DR. DARBY.—In our December issue we spoke of the outrage that had been perpetrated upon Dr. F. H. Darby, of Morrow, Ohio, who had been imprisoned at Lebanon for contempt of court for refusing to give expert testimony in a murder trial, unless paid an expert's fee of \$25. The doctor made no objections to testifying to all matters of fact which had come to his knowledge; but he refused to reply to questions (unless paid more than a common witness of seventy-five cents) which involves his professional knowledge.

After the doctor had been imprisoned in jail for near a week, he was liberated on his own recognizance, and charges were filed against him. Since the issue of our last number, the case was heard by Judge O'Neill, of the Warren County Court, and a fine of \$25 assessed against the doctor. The

case has been appealed to the Circuit Court; and if the decision there should be unfavorable to Dr. Darby, it will be carried to the Supreme Court.

We understand there have been several decisions in various Common Pleas Courts of Ohio against the legal right to compel physicians to testify upon expert subjects without payment of a reasonable fee; but it seems that Judge O'Neill viewed the subject in a different light. As we stated in our previous article, every physician in this country is as much interested in the final decision of this subject as is Dr. Darby.

THE SAMPLE-COPY MAN.—Notwithstanding that the methods of the sample-copy man have again and again been exposed in the MEDICAL NEWS, and in the other medical journals, yet there is scarcely a day that we do not receive several postals requesting that a sample-copy of the MEDICAL NEWS be sent the writer.

Each monthly issue of the MEDICAL NEWS contains seventy-two closely-printed pages, and costs the editor a great deal of labor. Is it reasonable that the publisher, under the circumstances, will be willing to hand out his property gratis to every one asking him, and pay the postage also? Yet this class of men seem to think so.

Publishers very well know that persons are induced to subscribe for a journal in consequence of having become familiar with it by having frequently met with it in the hands of friends, or because they have been recommended to subscribe for it. They know that an individual who brazenly asks that a good-sized book be sent him, without any remuneration whatever, worth at retail one-fourth the price of subscription, not even inclosing the stamps to prepay the postage, has no notion of subscribing—that he is only a “dead-beat,” as those are commonly called who expect to get something for nothing; who, having invested fifty cents in postal-cards, is expecting to obtain that many medical journals, not one of which he has any notion of subscribing for.

THE ABUSE OF ERGOT.—At a recent meeting of the *Academy of Medicine of Cincinnati*, Dr. T. A. Reamy brought a heavy bill of charges against the indiscriminate use of ergot. Among them are lacerations of the perineum, vagina and cervix, retention of the placenta, the

death of the child, acute toxic ergotism and gangrene, the rupture of the uterus and the death of the mother.

He proceeded to say: "We are perfectly well aware of the almost universal practice among midwives of administering this drug at any stage of labor when the progress is at all tardy, and when it is considered that in Cincinnati seventy per cent. of labors are attended by midwives, we must tremble at the perils to parturient women. Nor is this evil practice confined to midwives." He said that it was within his personal knowledge that there are very many physicians, both in this city and country practice, who employ this agent very extensively before the end of the second stage of labor.

He expressed his firm conviction that the cases are extremely rare where the exhibition of ergot prior to the termination of the second stage of labor is justifiable, and in these rare cases of ante-partum uterine inertia, which have resisted other means of securing contraction, the ergot should be given in small doses with caution. It will not be claimed that these restrictions are more radical than the rules given by almost every modern obstetric writer of reputation, as already cited in this paper. Nevertheless, it must be confessed that this teaching is too often disregarded. The practitioner does not discriminate. He knows that ergot certainly and powerfully increases uterine contractions, that contractions consummate delivery. He therefore gives ergot to shorten the duration of labor, and the evils follow.

The objections to the administration of ergot before the close of the third stage of labor are equally positive, though the dangers of rupture of the uterus, death of the child, laceration of the cervix or perineum are not now in the count. Closure of the uterus with incarceration of the placenta is no uncommon result from the practice, since it is a well-observed clinical fact, though difficult to explain, that the action of ergot tends especially to close the os internum, the ring of contraction of Schröder, rather than to produce expulsive contraction of the upper portion of the uterus. Should the placenta not be retained, clots are retained in the uterine cavity rather than expelled, by virtue of the same faulty character of contraction. But a still greater evil is hidden in this question, so that it is not generally seen, namely: The rigid contraction secured by the ergot does not result in thickening of the uterine walls in the

upper segment, the region of placental attachment, with corresponding thinning of the walls in the lower segment of the uterus. In other words, it does not promote and secure retraction, a condition essential, first, to permanent protection against hemorrhage; second, to the first steps in involution. This condition of perfect retraction is only secured by the intermittent contractions and relaxations which normally occur in execution of the physiological law governing the uterus at such a time. If from any cause these contractions are too feeble, they may be strengthened by friction upon the abdomen, gentle compression of the uterus through the abdominal wall, or, if need be, by suitable doses of ergot. But it is here that he wished to enter his emphatic protest against the practice so extensively adopted of administering a drachm of the fluid extract of ergot immediately upon delivery of the placenta. Not only does he protest against this single dose, but against the custom of continuing the exhibition of full doses three times a day for several days, though he advises the use of small doses, sufficient to maintain healthy uterine contraction, in all cases where the natural muscular tonicity is inadequate.

While we assent to much that Dr. Reamy says in regard to the great injury done by the indiscriminate and improper use of ergot, yet we do not believe that it ever exerts any toxic influence upon either the mother or child. Professor Mendenhall, our tutor in obstetrics, who had probably as large experience with ergot as any obstetrician in this country, used to state in his lectures that ergot never exerted any poisonous effects upon mother or child. When the child is found to be dead after the administration of ergot, an examination will show that its death has been brought about either by long continued pressure upon the cord, or long continued pressure upon the brain. All are aware who have administered ergot that the pains produced by it follow one upon another without intermission. Under such circumstances, if there be rigidity of any of the parts, or if there be a too narrow pelvis for easy passage or obstruction of any kind, the cord may be exposed to such a pressure as to prevent all circulation through it for a fatal length of time, or the head of the child may be pressed against the pelvic bones for a period too long to permit resuscitation after delivery has taken place. Neither Professor Mendenhall, nor have we, ever met with a case of death of the

child on delivery, after the administration of ergot to the mother, that was not clearly traceable to one or the other of the causes mentioned. Of course, it follows that ergot should not be exhibited where there is either rigidity of any of the maternal parts, or obstruction existing to the passage of the child.

INVESTIGATIONS UPON CHOLERA.—Dr. E. O. Shakespeare, of Philadelphia, has recently returned from a tour of investigation in regard to cholera by special appointment of the United States Government. • We learn from the *Medical Times* that he has not only traveled in several countries of Europe, but also in India, and has succeeded in collecting considerable important information. At a lecture delivered before the College of Physicians he stated that in a number of epidemics of cholera in the different countries where it had been studied, the connection between the outbreak of the disease and infected water supply was clearly shown in nearly every instance.

He proceeded to observe that, although the proof of the statement that the comma-bacillus is the active and efficient cause of Cholera Asiatica was not entirely satisfactory to his mind, he felt no hesitation in declaring that Koch had conferred an inestimable boon upon the race by placing in the hands of every practitioner an infallible means of diagnosis of this disease from cholera morbus and other diseases resembling cholera. He expressed the opinion that a health-officer or physician who, in the presence of suspected cases and before the prevalence of the malady is an epidemic, should fail to employ this means of deciding whether or not the disease is genuine cholera, would be guilty of criminal neglect.

Evidently Dr. Shakespeare is of the opinion that every physician, and especially every health-officer, should be in the possession of a good microscope, and should understand how to use it. The microscope has become of late years an important means of diagnosis; so much so, in fact, that its claims can not be overlooked.

OHIO STATE SANITARY ASSOCIATION.—The fourth annual meeting of the State Sanitary Association will be held in the Board of Trade Room, City Hall, Columbus, O., on Thursday and Friday, February 10th and 11th, 1887, at which

time a number of papers will be presented and discussed; the exact order of which will not be decided on until the issue of the regular program the last of January.

Reduced rates have been secured on all lines centering in Columbus, and will be granted to all persons desiring to attend the meeting, who, on application to the Secretary, at least one week prior to the time of the meeting, will be furnished with the proper certificate, which must be secured before leaving home. R. Harvey Reed, M.D., Secretary, Mansfield, Ohio.

A LEGAL case of considerable importance to physicians has just reached a final decision. Dr. Alfred S. Purdy and his son, of New York City, determined that Angelina M. Brown was suffering from smallpox in November, 1879. They reported their conclusion to the New York Municipal Board of Health, and the woman was taken to the Smallpox Hospital. There it was discovered that she had not the disease. She sued the Drs. Purdy for \$5,000 damages, and a jury in the Superior Court recently awarded her damages. The Superior Court, General Term, decided that the complaint should have been dismissed, as there was a reasonable doubt as to the character of the disease in the beginning, and as it was the duty of the physicians to report the case to the health officers, who then assumed the responsibility of taking her to the hospital.

PATENT MEDICINES IN RUSSIA.—It seems that Russia does not possess a good soil for patent medicines. Maybe it is the extreme cold that prevails here that prevents them from taking root and flourishing there. We notice in the *Reporter* that a list of patent medicines, the importation of which the Russian Government has decided to prohibit, has recently been published. It consists of about eight hundred preparations of English, American, French and German origin—the English or American numbering nearly one hundred. Pills, plasters, hair restorers, cough drops, medicated foods, ointments and many miscellaneous preparations for a great variety of purposes, are all classed together in one long medical index: expurgatorius. The list appears to have been drawn up by a committee of Russian physicians, and even such remedies as taraxacum and podophyllin have been struck out.

A RISKY EXPERIMENT.—A member of a town council in England had some doubts as to whether the analyst for the town was earning his fees by actual duty, and thereupon conceived the brilliant idea of sending him a sample of beer to examine. The law provides that whenever a sample of any article to be examined is procured, it must be sent to the analyst in precisely the condition in which it was received from the party selling it. But this brilliant member of the town council had a notion of his own, and so he added some material to the beer before sending it to the analyst. In due time the analyst reported that the sample of beer examined was genuine. It seems, however, that one of his assistants, thinking it his proper duty to sample the samples of beer that came to the office was nearly sent to the happy hunting grounds of the aboriginal American—*i. e.*, he was poisoned, not because there was too much beer, but he probably included the special sample sent by the town councilor. As it now stands there is a mad analyst, a good many indignant analysts who think of such a mean trick, a town councilor who will probably have to stand a law-suit, a repentant beer-drinking analyst's assistant and some lawyers hoping for employment.

THE PHONOGRAPHIC MAGAZINE.—We have received the first number of this magazine, Jerome B. Howard, editor. Single number, 15 cents. Yearly subscription, \$1.50.

The *Magazine* will be of interest to reporters of speeches, and educational persons generally. Besides being devoted to phonography, shorthand writing, it will also be devoted to reform in spelling. The editor says in regard to the journal: "We feel deeply that there is reason for our engaging in this work. In the past five years the appeal for a phonographic periodical has come to our ears so often and so earnestly, from writers of phonography, teachers of phonography, and students of phonography, everywhere, that we at last feel that the time is some when we can no longer say nay. The work comes to us therefore as a duty, and as such we accept and trust to perform it."

Address Phonographic Institute, Cincinnati, O.

TROMMER EXTRACT OF MALT CO. have an advertisement that will bear a careful reading. They guarantee uniformity of strength and purity of their Extract, and are engaged ex-

clusively in its manufacture, producing one quality only—the best. The Trommer Company was the first to undertake the manufacture of Malt Extract in America, and the first in any country to employ improved processes in its preparation, with the object of preserving unimpaired ALL the soluble constituents of carefully malted barley of the best quality, including especially the important nitrogenous bodies which possess the power to digest starchy food.

PASTEUR AND HYDROPHOBIA.—M. Colin, the eminent professor in the Veterinary School at Alfort, read a paper very recently, before the Paris Academy of Sciences, showing that the average annual number of deaths from rabies, in France, is twenty-six (the population of France is thirty or forty millions), and that since M. Pasteur began his treatment the same number of patients have died. According to official statistics the number of persons bitten by mad animals last year, in France, was 351, while M. Pasteur has treated 1,700 patients. M. Colin concludes that the Pasteur system is of doubtful efficacy, and he is alarmed for the results of virulent inoculation.

THE YOUNG SURGICAL CHAIR.—Our readers will notice in this issue of the MEDICAL NEWS an advertisement of the "Young Surgical Chair." The chair is manufactured by Dr. F. E. Young, of Canton, Ohio, and has been adapted with great care to the wants of physicians, surgeons and gynecologists. When not in professional use it will serve as a splendid reading chair for the physician who has it in his office. No physician once having it could be persuaded to do without it. It is the cheapest chair in the market. It has been improved since it has been upon the market.

THE ANNALS OF SURGERY.—Every practitioner interested in surgery should take the *Annals of Surgery*, published by J. H. Chambers & Co., of St. Louis, Mo., at \$5.00 a year. It is the only journal published in this country that is devoted exclusively to surgery.

A NEW WOMAN'S MEDICAL COLLEGE.—We have learned from rumor that a Woman's Medical College will begin its session in Cincinnati on or about the middle of February.

THE CINCINNATI MEDICAL NEWS.

VOL. XX. No. 230. }
Old Series.

FEBRUARY, 1887.

{ VOL. XVI. No. 2.
New Series.

Original Contributions.

Pernicious Food.

BY A. R. SMART, M.D., OF HUDSON, MICH.

Read before the Sanitary Convention of Michigan.

DR. GIBBONS, the gifted and witty editor of the *Pacific Medical Journal*, said a few years since that between the microscopists who were discovering parasites, etc., and the scientists who were tabooing one after another of the foods in common use, one had but little left to eat, that he might feel safe and sure about. Be this satire merited or not, we feel certain that the public are consuming many food products that are pernicious and unwholesome. Often, indeed generally, such foods are used ignorantly, being fraudulently sold for pure articles. I ask your attention for a few moments to a brief review of some aliments which may work injury to the consumer. We may consider the subject under three heads:

1st. Foods inherently and absolutely pernicious.

2d. Foods rendered deleterious in their preservation or preparation.

3d. Foods relatively injurious.

Of foods positively injurious we will first consider meats. Unsound meat has for ages been deemed unfit for food. It was the subject of Hebrew legislation, and they had their inspectors whose duty it was to see that no meat unfit for use found its way to the consumer. The Romans had similar laws in operation. In old England during the 17th century butchers were not allowed to sell meat by candle-

light, so that consumers might not be deceived in the quality. We call the attention of those cynics who think the world is growing more dishonest to these facts.

The flesh of animals suffering from any form of disease constitutional in character is not fit for food. Cattle suffering from splenic fever, from foot and mouth disease, from cancer, or tubercle; hogs with cholera, sheep with foot rot, animals in an unhealthy morbid condition from any cause, are not only unfit but exceedingly dangerous for food. Yet such animals have been slaughtered and sold for consumption in our large cities so frequently and to such an extent that public attention has been called to it in many localities. Often the meat thus obtained is not offered for sale in the locality where it is killed, but is in various forms shipped to different sections to be consumed by unsuspecting purchasers. To show the extent of this practice it is only necessary to look at the result of the inspection of cattle as now practiced in Chicago. The inspection was incomplete, being done only by one inspector, another having since been appointed; yet during six weeks last fall 85 head of cattle were condemned as unfit for food. During October last it is said three carloads of cattle affected with actinomycosis, a parasitic disease of the head, were shipped to Grand Rapids to be used as food. Dr. Sozinsky, of Kansas City, affirms that when hog cholera, splenic fever, epizootic, or a similar disease, breaks out among herds of marketable animals, the affected ones are at once sold to the butchers and packers at a slight sacrifice. Much of such meat is made up in various forms and shipped to distant parts of the country. The writer has known instances when poultry which had soured was shipped East, sold at a sacrifice, put through some process to recover it, and sent back as prime canned goods.

Again, meat may be affected by poisonous substances eaten by the animal without it having suffered any ill effects. In parts of the Alleghenies the flesh of cattle as well as their milk is rendered poisonous at certain seasons of the year by substances eaten by the animal. The same thing is true of birds, and even, it is said, of oysters and crabs. Instances of trichinosis from infected meat are only too common, but trichinæ are not the only parasites that infect meat. Another form of microbe has been found in ham, called pork bacillus, in England. The symptoms which follow the use of the infected meat are those of enteric inflammation, with vomit-

ing, cramps, etc., and supervene rapidly. A severe case is said to resemble cholera. There is reason to believe that erysipelas and kindred diseases may be originated in man by eating meat of animals suffering from these conditions; but aside from specific diseases, many profound general disturbances arise from eating diseased meat. Gastric irritation, vomiting, diarrhea, faintness and inability to swallow, have been noticed most prominently. Sometimes deranged vision is seen. In one instance paresis of accommodation, lasting a number of weeks, was the most prominent symptom noticed. It is well to state in this connection that similar results have followed eating unsound fish.

Milk is an animal product easily influenced by the condition of the animal as well as by its surroundings. It absorbs readily and may be easily contaminated by proximity to deleterious substances, and rendered unfit for food. Milk is often made pernicious for food by substances the cow has eaten, by bad water, by overheating, and by sexual excitement. Dr. Brush, of New York, asserts that milk is unfit for use during the heat of the animal,—he says cheese-makers recognize this fact and do not use the milk for cheese-making at such times. The doctor thinks the condition of the milk is a fruitful source of the acute infantile diseases of summer. He suggests that cholera infantum would be more popularly styled *acute milk-poisoning*.

Instances of infectious diseases conveyed through milk as a vehicle, are too numerous to be doubted. Outbreaks of typhoid fever originating in this manner are not at all infrequent. Dr. Morrill Mackenzie, a most trustworthy observer, has conclusively traced epidemics of diphtheria to the milk-supply. In one instance it was shown that the milk was contaminated by water containing a large proportion of sewage; in another instance the milk-pans were washed in impure water. It is said tuberculosis is a not uncommon disease among cows. Experiments by different observers have shown that the use of milk from a tuberculous cow may induce the disease in the human species. There is reason to believe that the use of meat of tubercular animals is liable to induce tuberculosis in the consumer. These dangers are *lessened*, but not wholly avoided, by cooking the suspected milk or meat.

The evils to be feared in this direction are by no means imaginary. In England it is stated by competent observers that one-fifth of the milk sold was from cows affected with

tubercle or some analogous condition. Probably the proportion is not so large in this country, but it is large enough to demand attention. Three years ago in Aberdeen, Scotland, a number of cases of severe disease occurred from eating milk of cows fed on diseased turnips. These were rigors, headache, backache, high temperature, sore throat, swelling and engorgement of the lymphatic glands. There is abundant evidence to show that the foot and mouth disease of cattle may spread to the human subject by means of the milk of the affected animal. This may arise from the poisoning of the milk from the vesicles formed on the udder or through the medium of the blood; it is not definitely settled, in which of these ways it does occur. Dr. Creighton in his address before the British Medical Association last summer made this assertion: That many forms of disease in the human species called scrofula were in reality only manifestations of bovine tuberculosis. The measures needed to prevent these evils are the inspection of animals slaughtered for food, the inspection of cows kept for milk supply, careful supervision of the meat and milk to secure its freedom from contaminating influences, thorough cooking of each before using it for food. It is not improbable that in the near future cows kept for milk will be spayed to avoid the deleterious influences of sexual condition on the milk.

Of vegetable foods, the most common conditions which render them injurious are imperfect ripening and degenerative changes. Corn and wheat are subject to fungous growths which render them unfit for food. These grains, when imperfectly ripened develop poisonous principles, some as active as strychnia in their operation; others which resemble nicotine poison in their effects. The Italians, when much of this damaged grain is consumed for food, suffer from pellagra and other constitutional maladies which are thought to be caused by their food, particularly by damaged corn. The action of ergot, the fungus of wheat, rye, or corn, is well known. Unripe wheat, or wheat shrunk by rust will, if used for bread, excite bowel complaints and disturbances in digestion. Musty flour or meal will produce like results. Dr. Solomon has recently examined the epidemic among cattle in the West which has been supposed to be the foot and mouth disease, and has recently reported to the Department of Agriculture at Washington, that he considers the malady a result of the

use of damaged corn, and not the disease in question. A careful supervision of the grains that are ground for food, and care in their subsequent preservation, is needed to prevent injury from this class of foods.

Another vegetable of little importance as a food, but from which frequent disturbances occur when eaten, is the mushroom. According to authorities who have investigated the subject, mushrooms may poison by being indigestible and poisoning by decomposition; some varieties contain a poisonous alkaloid known as amanitine or muscarine. Such specimens are so poisonous that they poison adjacent substances by absorption, and will produce serious disorders by being held long in the hand. Prof. Ponfick says all common mushrooms are poisonous, but that the repeated washings they receive and the cooking deprive them of their poisonous qualities. The water they are cooked in becomes poisonous, however. Vinegar also antidotes or lessens their noxious properties. The best antidote in cases of poisoning from any form of mushrooms is belladonna, stramonium, hyoscyamus, or some of their alkaloids. When the small value of these articles for food is considered, their danger should forbid their use.

2d. We will briefly notice foods rendered deleterious in their preparation or preservation. A custom which has attained a widespread popularity is canning foods of nearly all kinds. While in proportion to the quantity used the number of cases where injurious results have followed their use is not large, yet it is so large as to merit notice. A good number of cases of poisoning from eating canned meats have been recorded. Four cases of poisoning from eating canned beef were reported not long ago. The meat used was in a bright can which was air-tight. There was no bad, offensive odor to the specimen, but it was noticed that the jelly which covers the meat was replaced by a white viscous fluid. An analysis of the meat revealed nothing, and the report of the investigator stated that meats preserved in that manner might undergo changes which would endow them with toxic properties and yet not change their appearance, color or taste. Cases of poisoning from use of pressed beef and chicken and from canned fish have been reported.

The fault may be in some instances in the character of the meats put up. In other cases it may result from changes that occur subsequently, even after the meat is eaten. In 1875 Drs. Moniggia and Ballistini, Italian chemists, discovered

a class of organic poisons which result from certain transformations of albuminoid bodies. They develop during retrograde changes in albuminoids, and most readily while the air is excluded. They are alkaloids in character, and are supposed to result from union of certain hydrocarbons with the nitrogen of the tissues, while their carbon and the oxygen are driven off as carbonic acid. These principles are known as ptomaines, and are very poisonous. A specimen was presented to the French Academy of Medicine which consisted of an oily, caustic liquid, and was so extremely venomous that a milligramme and a half inserted under the skin of a bird killed it with paralysis and tetanic convulsions. These principles, which have a similarity in action and behavior to alkaloids, have been found not only of cadaveric origin, but in the secretions of the human body during life. Bechamp asserts that products analogous with ptomaines exist in the gastric and pancreatic fluids during digestion of albuminoids; and that they are found during the normal digestion of these substances; that they react with chemical agents like ptomaines, and possess the same toxic activity. M. Beregu has also discovered a similar principle which forms during the digestion of albuminoids, but if the digestive act is prolonged they disappear. He found that an amylic extract of this substance would kill a frog in doses of one-twentieth grain. The presence of these principles in the human saliva has also been demonstrated. They have also been found in shell-fish, and are supposed to be more frequent and active in the summer than in the winter. This may be the reason that these foods are more dangerous at certain seasons of the year than at others. Our knowledge concerning the nature and origin of these poisonous principles is as yet incomplete: as it is but a short time since attention was first called to them. We may summarize what is known concerning them thus: Cadaveric alkaloidal principles are found in the breaking up of albuminoid substances; they can also be found at times in the secretions of the human body, as the saliva, gastric, and pancreatic juices; they form in albuminoids outside the body, and may be the cause of some obscure cases of poisoning after eating canned and preserved meats, fish, etc. They may, when found in the body after death or in the secretions before death, be mistaken for vegetable alkaloids, a fact of great importance in medico-legal investigations.

Flour is an article of food sometimes adulterated. It is

charged that alum is added to the patent flours to whiten them, but investigations have not seemed to sustain the charge. A case of lead-poisoning occurred in France which was after much difficulty traced to the miller, who had repaired the millstones where they had cracked by filling the places with lead. Another obscure case of lead-poisoning was finally traced to the baker who warmed his oven with old painted boards. These cases show how little will suffice to produce poisonous effects. Lead-poisoning especially is often obscure in origin. A young lady suffering from symptoms indicating lead-poisoning was in the habit of holding silk in her mouth which contained lead used in its coloring. The adulteration of bread with alum is common. Dr. Gunder says alum exists normally in bread in the proportion of four and nearly one-half grains to the two-pound loaf. He found as the results of his examinations of 17 samples of bread purchased in the shops, that one-half of them contained from 9 to 17 grains of alum to the two-pound loaf, and he also found alum in all the so-called patent flours examined, in what quantities he does not state. *Per contra* Dr. Dennison, of Whitewater, Wisconsin, found no alum in 23 samples of flour examined.

Baking powders are very generally adulterated with alum. The adulteration of bread with alum is an old practice, and was known in old England centuries ago. It serves the double purpose of concealing other adulterations, and of assisting fermentation; flour adulterated with other substances than wheat would lack plasticity which the alum supplies.

All canned goods are open to suspicion. Cases of poisoning have followed their use so frequently as to excite attention. Meats, vegetables, fish, and especially fruits are more or less contaminated by the metal used. Tin can be found in nearly all specimens, and in some lead is present in dangerous quantities. It is said that tin can be tasted when present to the extent of one-half grain to the pound. This amount may not be large enough to do much mischief. Certain sugars are said to contain about the same proportion. While a *small* quantity of tin may not be deleterious, when so *many little*s are taken the effect may be serious. There is danger from lead-poisoning from some canned goods, which arises from the use of impure tin and careless soldering. These dangers seem to be greater in the presence of an acid. The evils resultant from canned food may be avoided by the use of a pure, bright tin, neutralizing

acids, if any are used in canning, using the articles canned within a short time, and immediately removing the contents of the can as soon as opened.

Some foods are adulterated to give them proper color. Vegetables are colored green, with sulphate of copper. In some instances as much as five grains of copper have been found to the can. Copper is found in small quantities in wheat, and small quantities of the drug may not do damage; but the use of the article in excess of the proportion normally found may easily be pernicious. M. Pasteur, the eminent French chemist, found copper in most canned vegetables, and says that peas, beans, asparagus, and similar vegetables, owe their green color to copper. Cream of tartar is an article almost universally adulterated. Dr. Squibb found the adulteration to vary in different samples from 10 to 90 per cent, and that they were generally lime and terra alba.

Sugars are now largely mixed with glucose; syrup, almost wholly so. Cheap sugars should be looked upon with suspicion, as the cheapness may come from an admixture with glucose. Loaf sugar is most often so adulterated; it may be distinguished by its smooth look, and dead, heavy sound. Granulated sugar is the least likely to be adulterated. It is, however, in confectionery that the greatest adulteration is practiced. Of one sample of that good, old fashioned article, molasses candy, examined, all was glucose. Caramels are nearly all glucose, usually containing from 75 to 80 per cent. Cream candy is said to be the purest, containing but about 12 per cent. Glucose has about two-thirds sweetening power of cane sugar, and when pure is not in any way injurious; but as made it is often mixed with lime, copperas, sulphuric acid and lead. According to analyses made of some specimens, it is anything but pure. Confections are not only adulterated with glucose, but terra alba, which is entirely indigestible, enters largely into their composition. Various deleterious coloring agents are also used. It is safest for candy lovers to use uncolored candies.

In late years butter has occupied the attention of the adulterater, and is often no longer what it seems. The supremacy of the cow is being replaced by the hog, and the residents of large cities at least may eat but little bovine butter. The bogus article is so perfectly manufactured as to deceive experts in the business. This counterfeit butter is becoming very common. Many materials are used in place of cream.

Goats may yet be used, as they bear a reputation for making a good butter. A few days ago a bill was introduced in the New York Legislature prohibiting the sale of oleomargine. Mr. Low, who had it in charge, said that one-half the butter sold in the State was made from lard and oils, imported from France, colored by chemicals and deodorized by other chemicals ; he further said that nearly all the farm industries of the State were stock-raising and dairy products ; and that the oleomargarine had reduced the price of butter ten cents per pound, and that of cheese one cent per pound, involving a loss to the State of nearly \$10,000,000. This shows how seriously this fraudulent product affects the country financially. When pure, oleomargarine may not be detrimental to health ; but when made from doubtful ingredients, manipulated up to the proper standard, it is open to objections. Moreover it is a fraud on those who prefer bovine butter.

Tea is very often impure. Leaves of other plants are added, as willow and elder. It is colored by means of plumbago, Prussian blue, copper, etc. Various gums, clay, soap-stone, and quartz are employed to doctor imperfect specimens up to a certain standard. Exhausted leaves are dried up and added to good tea. Indigo has been used in facing poorer grades. These practices have become so flagrant and common that a government supervision has been established over the sale of teas, and large quantities have been condemned during the past year.

Ground coffee and spices are nearly always adulterated, and sometimes even the unground coffee is tampered with.

The remedy for all this is to compel manufacturers and dealers to state on the goods offered for sale precisely their character. Some of these adulterations are not positively injurious to health, others are so ; but when a legal supervision compels articles sold to be what they are represented, then if a man prefers beans, wheat or chicory to coffee, he may buy them and pay their real value ; or if he chooses to eat oleomargarine or butterine in preference to butter, or to use glucose in place of cane-sugar he has the privilege to do as he elects ; but he should buy these articles at their real value and not at the cost of the genuine.

Ice is largely used in warm weather and the impression prevails that no danger is incurred, as its impurities, if any existed in the water, are destroyed by freezing. Diseases may be conveyed by impure ice as by impure water. Exposure to air will, to a certain extent, oxidize germs of

animal origin; but it will not destroy vegetable or malarial germs. In freezing water does not free itself from microbes, infectious or otherwise; and during cold weather it should be remembered organic matter is not used up so rapidly as in warm weather. As much care should be taken to secure pure ice as to guard the water-supply from contamination.

The preparation of food for eating is a matter of importance. We are said to be a nation of dyspeptics, and there is much truth in the assertion. One reason for this may be found in the prevalent styles of cooking. It is a popular notion that dyspepsia is a condition found chiefly in cities and among those of sedentary habits. We think this is not true, but the reverse. We venture the assertion that more dyspeptics will be found among the rural population than elsewhere: also that as a rule poorer methods of cooking prevail in the country than in cities. The object of cooking food is the disintegration of texture so as to facilitate mastication, solution, and digestion, and to kill germs or parasites if any exist in the article cooked. How often and how well this is accomplished in meats fried to a crisp and coated with a dense impermeable crust of greasy "coat of mail;" in vegetables with the juices cooked out of them; in the dense sour bread; in the heavier sodden alkaline pastry and biscuit and other things too numerous to enumerate, but which so often confront us in many localities, I leave you to imagine. The subject is a fruitful but delicate one, and I have neither time nor disposition to pursue it further; but will drop it by saying it is certain that the preparation of foods often renders them deleterious.

Again, foods are sometimes relatively pernicious. Man's dietary has much to do with his moral nature as well as his physical condition. Dogs kept chained and fed meat grow savage, and there is no good reason for disbelieving that man is not similarly influenced by his diet. The moral effect of good, well-cooked food is not to be ignored; it is a temperance weapon of no mean power. Half-starved, overworked, and under-fed people fly to stimulants. Scanty food, badly prepared, with its resulting exhausted systems, is a fruitful source of the craving for strong drink. Condition and circumstances must govern the question whether a given food is wholesome or pernicious. Meat, for instance, is one of the most valuable of foods, three-fourths of a pound being the daily allowance for a healthy adult, necessary to maintain him in good working condition. It

deservedly holds a high place as a tissue-builder and stimulant-food; but persons who are not using much tissue material, who are leading quiet, sedentary lives, or who have rheumatism, gout or imperfect excretion of urea, and those whose kidneys are overburdened and enfeebled, should use but little meat. To such people meat becomes a pernicious food.

It is a pertinent query whether the excessive use of nitrogenized food in this country has any relation to the increasing prevalence of Bright's disease. On the other hand, the inadequate supply of this class of foods has its penalties. Imperfect nutrition from underfeeding is a prolific source of mischief among women and children especially. Many cases of nervous disorder, and chronic invalidism, arise from a diet of toast and tea, with a few sweets. Grately Hewitt ascribes to this cause the great prevalence of female weakness and uterine displacements. He says flexions especially are originated oftentimes in a low, imperfect general nutrition. •As a rule, however, in this country, we think the tendency is to give animal food an undue prominence in the dietary. Wheat products and other seed foods ought to form the basis of a sound rational dietetic system; and second to these should be placed meat and the fruits. Perhaps one reason why wheat, the king of grains, is losing its supremacy, is its emasculation by the refinements of the miller. Flour has been manipulated up to such a degree of perfection, or *imperfection*, as you may choose, that we have but a small proportion of the original qualities of the grain left us.

Condiments, as spices, mustard, etc., are when pure, useful not as foods, but in exciting appetite, and the flow of glandular secretions, and thus assist digestion.

Salt, valuable and necessary in moderation, should be carefully used both in the preparation and preservation of foods, as an excess impedes rather than favors digestion.

Finally, the quantity and character of the food-supply should always be carefully adapted to the condition and wants of the system, remembering that deficiency in quality or quantity will impoverish and enfeeble, while excess, of the nitrogenized foods particularly, will overtax and clog the vital functions and become a pernicious food.

Sulphate of Quinine—Its Use and Abuse.

BY DR. GEO. M. DEWEY, KEYTESVILLE.

Read before the Missouri State Medical Society.

IN THE following essay I do not propose to sing all the praises of this drug, nor to write its epitaph.

I shall not detail its physiological effects or chemical analysis, but will consider it mostly from a clinical point of view. Its history is so well known that it needs no recital.

The discovery of quinine was a greater boon to the human race than that of any other drug in the materia medica. Before its discovery, pernicious intermittent and remittent fevers were as deadly as cholera or smallpox. Now, when death results from a congestive chill, as pernicious intermittent is called by the laity, the result is charged to the physician's ignorance.

If we have a drug that deserves the name of a specific, it is sulphate of quinine for ague. For nearly all diseases of a remittent or intermittent type, it deservedly ranks high; especially those that have no organic lesion. But for many maladies for which it is now fashionable to use it, it has no curative power.

It is the custom with most of the physicians of this country to give quinine during some stage of every disease that flesh is heir to. Some give it for one purpose, and some for another; many because they don't know what else to do. A bottle of quinine can be found in every family in the rural districts of Missouri that have the means to buy it.

The reason that most doctors give for their extravagant use of it, is that nearly all our diseases are caused by that undiscoverable something called malaria—a universal poison; the antidote quinine. Dr. Dickson, in his book on the Unity of Disease, announced the syllogism: "All diseases are varieties of ague; quinine cures ague; therefore quinine cures all diseases." Every human being, from Florida to Pike's Peak, is supposed to be more or less poisoned by malaria. If it had as firm a hold of our bodies as it has on our minds, our condition would be deplorable indeed.

Whatever evil results have grown out of this delusive theory should be charged to those teachers in medicine who originated it, and to the doctors who believe and practice from it.

If quinine cut any figure in the cure of a tithe of the cases in which it is so confidently administered by the average doctor, we could abide a false theory.

In my intercourse with physicians, in consultations and in medical societies, I find very few who believe that quinine can possibly do any harm. They use it as the old lady did her blister. "If it did no good, it will do no harm."

The prefix *anti*- seems better suited to quinine than any other drug we possess. It is antiperiodic, antimalarial, antiseptic, antiphlogistic, antipyretic, antibacterian and antimortemic. Consequently it will prevent or cure nearly all our maladies.

We sneer at and ridicule our fathers for having such a mixture of calomel, and bile, and liver in their theory and practice of medicine. Has the substitution of quinine for calomel added many years to human existence? Are decayed teeth greater afflictions than shattered nerves? In making up a theory for fevers, was not derangement of the portal circle as plausible as malaria? Is it not more tangible? As a rule, a medicine that is potent for good is also potent for evil. Is quinine an exception to this rule? To what else shall we attribute the late enormous increase of suicide and insanity, but deranged nervous systems through the excessive use of quinine? Can any drug be innocuous that can weaken our hearts, and make us blind and deaf?

That quinine is capable of making powerful and deleterious impressions upon the nerves centers, and thereby affecting the nerves of special sense, needs no proof. There are but few persons in all this broad land who have not been deafened by it, and some made amaurotic.

Dr. H. C. Wood states, in his book on Therapeutics, that he has seen complete temporary amaurosis produced by it in a lady by twelve grains. Dr. Von Grafe saw two similar cases. Dr. Flint mentions another.

I will relate a case that came under my own observation :

Mr. G., aged 22, was attacked with pneumonia. There was a prolonged cold stage, lasting some hours, during which his physician gave him about half an ounce of quinine in divided doses.

There was considerable bilious vomiting and a good deal of the drug was thrown up. In less than twelve hours the patient was totally blind and deaf. In seven or eight days

the deafness entirely disappeared, but the blindness remained.

Three months having elapsed, he could hardly distinguish night from day. The pupils were largely dilated and insensible to light. Mr. G. consulted many physicians in the country, and some in St. Louis. He received little or no encouragement from any one. He visited the Eureka Springs and came home somewhat improved. His sight has been gradually improving, and now, at the end of eighteen months, he is able to go about his farm and attend to business a little.

If quinine can thus destroy the function of the nerves of special sense, it must do so by congesting the vessels of the parts, and, acting mechanically, produce partial paralysis.

Physiologists inform us that neither the auditory nor olfactory nerves have any sensibility *per se*. We are also told that irritating the floor of the fourth ventricle of the brain will produce sugar in the urine. Now, as diabetes prevails mostly in what are called malarial regions, and in subjects who have had many attacks of ague, and consequently taken much quinine, may we not reasonably infer that quinine, by producing congestion of the fourth ventricle, is the prime originator of diabetes?

I now propose to discuss some of the therapeutic uses of quinine, whose value I do not acknowledge.

QUININE AS A TONIC.

I have never met with a doctor who did not believe that quinine is a tonic in disease, if not in health. Still I think habit and tradition have more to do with its use in this respect than clinical results will justify.

So far as my own observation goes, I must say I have never yet seen it used in any case in which I thought it increased the appetite, or in any way promoted digestion or assimilation. But, on the contrary, its most constant effect has been to irritate the stomach and create a disgust for food. And instead of hastening convalescence from acute disease, it protracted it.

I have seen a good many unthinking men, whose observation was not very acute, give convalescing patients two or three grains of quinine two or three times a day, and the patient finally recover. Better results would have followed if they had taken a few grains of starch.

It is doubtful whether any of the vegetable bitters are tonic unless they are astringent also. Though strychnine is not an astringent properly, it acts in a similar manner by contracting the tissues. Alcohol does the same. The infusion and tincture of cinchona are decidedly tonic and astringent also.

Headland, in his work on the Action of Medicine, says: "Quinine is not in any sense an astringent."

Trousseau, that prince of observers of the action of medicine, says:

"Sulphate of quinine fulfills all the indications of cinchona as a febrifuge, but not as a tonic. The febrifuge virtues of this salt can not be questioned; they are as evident as those of cinchona itself; but it is more irritant than that bark, both on account of its great solubility and because it has not the corrective, namely tannin. It causes chronic gastritis and diarrhea much oftener than cinchona." (Trousseau's Therapeutics, vol. 3d, page 121.)

I will also quote from another observer of large experience and acumen, Dr. J. Hughes Bennett, who, like Oliver Wendell Holmes, was not disposed to rob nature of her trophies won in many a conflict. He says:

"Quinine is also spoken of as a tonic when given in small doses. This property seems to have been attributed to it on account of its bitterness. * * * But whether it increases the appetite, stimulates the digestive organs or in any other way operates by increasing the tone of the system and impairing the nutritive powers, is a circumstance which, though generally adopted as true, admits of strong doubt.

"No doubt it is very frequently given to convalescents and weakly persons, who get better under its use; but whether this is owing to the quinine, or would have occurred equally well without it, is a matter very difficult to determine.

"Of one thing I am satisfied, namely: it is far inferior in tonic properties to many metallic and other vegetable drugs, and consequently a medicine with such valuable antiperiodic properties, the supply of which is also yearly diminishing, should not be wasted in endeavoring to produce effects so very doubtful as the tonic virtues which have been ascribed to it.

"For many years, therefore, I have not given quinine as a tonic, and have yet to meet with a case where it is neces-

sary to administer it in order to increase the strength of the system." (Bennett's Clinical Lectures, page 948.)

I would not be dogmatic, nor underestimate the professional acumen of the brethren; still I feel compelled to say that fashion and tradition have more to do with the use of quinine as a tonic than clinical results warrant.

Millions of dollars are yearly squandered and doctors and patients deluded in the belief that quinine is a tonic.

QUININE IN PNEUMONIA.

New-made graves, funeral processions, mortuary reports, sable-draped widows and orphans, are sufficient commentaries on what quinine can do for pneumonia. A great multitude of people have fallen victims to this disease during the last six months in Missouri, a vast majority of whom, from the initial chill to the death rattle, received a potion of this great antipyretic about every two hours.

It is given in this disease for various reasons and for no reason whatever. Some give it to pull the patient down; others to push him up. One gives it because the patient sweats too much; another because he sweats too little. Some men believe they have aborted pneumonia with quinine. The probability is there had been no conception.

A good many other remedies have the reputation of producing these abortions, such as ergot, acconite, blood-letting, blisters, etc. Clinical experience teaches us that pneumonia will frequently abort about the fourth day, whatever may have been the treatment, or with no treatment whatever.

In a lifetime I have seen but two pneumonia patients benefited by quinine. In each it was complicated with remittent fever.

What good reason or special indication can be found for giving quinine in pneumonia, I never could see. This disease, when once fully established, has as fixed and definite a course to run as the exanthemata, and quinine is as powerless to hasten its termination or lessen its danger as theirs.

The most experienced men in the profession have the least confidence in medicine, and the most in food and digestion in the treatment of pneumonia; and as quinine unquestionably impairs the appetite, it is contra-indicated.

If quinine is the great antipyretic which some men claim it to be, and if it is so by reason of its power to weaken the heart's power, may we not reasonably conclude that the fre-

quent reports we hear of late of sudden deaths by heartclot in pneumonia are due to quinine?

One thing is certain, reports of deaths from this cause have greatly increased since the use of quinine in this disease has prevailed.

Some physicians prescribe quinine in pneumonia to weaken the heart's action, and combine it with carbonate of ammonia to prevent this being done.

QUININE IN TYPHOID FEVER.

The use of this drug in typhoid fever has the sanction of custom and high authority.

The reason generally given for its administration is to abate the temperature by weakening the heart's action. That it will do this nobody doubts. But that in the end it is beneficial, some entertain serious doubts.

In half dram doses it will weaken the heart and the muscular system generally, conditions we should sedulously avoid in this disease. So soon as the effect of the drug has passed off, say in twelve hours, the heart beats on as before, the heat returns, and the malady pursues the even tenor of its way—only the patient is more nervous, more delirious, the stomach more irritable. Day after day there must be a repetition of this treatment with like results. It may be said that cold applications have to be repeated day after day. But cold water is tenfold more efficient, and a hundred-fold safer.

But, as the opinion of a doctor who never wrote a book nor delivered a lecture will not go for much, I propose to quote from the highest living authority in Great Britain on this subject. Sir William Jenner, in a lecture before the Midland Medical Society, of Birmingham, on the treatment of typhoid fever, published in the *London Lancet*, 1879, says:

“Quinine, in occasional large doses, or in smaller ones, repeated at intervals, has been followed by a reduction of temperature in typhoid fever.

“Salicylate of soda is said to have a like effect.

“When judging of the effects of these and other drugs for reducing temperature, one must not lose sight of the fact that a sudden fall of temperature when no drug is given is not of unfrequent occurrence, and also that the temperature varies daily.

"This natural fall of temperature I have seen attributed to the use of this drug.

"I must say I have been disappointed in the effects of the two drugs I have named as reducers of temperature, while I have seen both do much harm by disturbing the stomach and interfering with digestion. In a disease which runs a limited course, like typhoid fever, the greatest possible care should be taken to preserve the powers of the stomach, as the life of the patient may depend on his power to digest nourishment toward the end of the disease."

I will also quote a few lines more from Trousseau's *Therapeutics*. In Vol. III., page 163, he says:

"The daily intermittent and remittent type is especially peculiar to catarrhal fevers. Sulphate of quinine in these cases is not able to prevent the fever from developing and becoming continual, exacerbating and paroxysmal.

"It may even be very harmful, as it is at the beginning of certain typhoid fevers, which are very insidious, through the very marked quotidian and intermittent type which they take on at the invasion.

"The untimely administration of the sulphate of quinine stimulates the system dangerously, irritates the digestive tube, kindles the fever into fresh heat; and in spite of the success recently attributed to its use in typhoid fever, we have always found it hurtful in those exceptional cases where, by inevitable error or inattention, we gave it at the beginning of the fever."

It will be said that Trousseau and Jenner lived in a purer atmosphere than we do; that travel in a foreign country would have corrected their estimate of the therapeutical value of sulphate of quinine in the treatment of typhoid fever; or that the name, typho-malarial, would indicate the use of this drug.

Specious theories could never lead such men to underestimate or overestimate the value of their therapeutics.

I will give the practice and teachings near home.

Last December I was invited to a lecture on typhoid fever at a St. Louis hospital. A patient, a young man about twenty years of age, was brought before the class with typhoid fever in the second week of the disease.

To all appearances he was progressing finely; appetite good; temperature 102° , no delirium; but little cough; but little tympanites or diarrhea.

The patient seemed to me to need nothing but good diet.

But the lecturer thought differently. He directed him to take ten grains of quinine three times a day.

What the object could be under the circumstances of prescribing the quinine, I don't know. He probably thought that ghostly demon malaria was lurking in the wards.

In order to give the class backbone in the use of quinine, the lecturer stated that he had given as much as fifteen or sixteen hundred grains of quinine to a patient during one attack of typhoid fever, with no deleterious result. What the indication was for this enormous administration of quinine, the professor did not state. He may have been trying to ascertain how much quinine it would take to kill a man—making a toxicological experiment. If it was given as a tonic, the patient's system must have been at low tide at the start; if as an antipyretic, the patient must have been incandescent, and would have cremated without it; if as an antiseptic, poison deep and dank lurked in every vein.

If it took sixteen hundred grains to cure one case of typhoid fever, this should convince the most skeptical of its utility in this malady.

As the average duration of typhoid fever is twenty-one days, this patient must have taken about seventy-six grains a day. If he was not deaf and blind when he got up, he must have had an alligator's nervous system, and an ostrich's stomach.

Will not some ambitious young man in that class, anxious for notoriety, outstrip the teacher by administering two or three thousand grains?

The young gentlemen who listened to this lecture received it as the voice of inspiration. If the professor has not written a book, he has probably been to Europe.

If on some hobby once we jump astride,
We ne'er dismount, but to the devil ride.

QUININE IN SEPTICEMIA.

I will premise what I have to say on this subject by quoting the language of a very eminent member of the profession, one whose experience in the treatment of diseases where septicemia is supposed to run riot is greater than that of any other man in America. He says:

"At the present day septicemia seems to have taken full possession of the medical mind, and in my judgment, as in numerous instances in medical history, there is a tendency to exaggerate its frequency and importance." (Barker on Diseases of the Puerperal State, page 400.)

By many physicians quinine is given as a preventive of septicemia. If there be any known sign or symptom from which we can confidently predict this event, I have not heard of it. If "coming events cast their shadows before," I have failed to observe them in blood-poison. If there be no signs or symptoms of coming blood-poison, how can we know we have in any case prevented it?

If we had sufficient ground to believe quinine would prevent it, we might be justified in giving it for every traumatism.

Is there any better evidence that it will cure septicemia than there is that it will prevent it?

If blood-poison is produced by bacteria, or some living organism, we can find an excuse for its administration, as it will destroy fungi and infusoria out of the body; but, as blood-poison intrinsically tends to debility, it is certainly bad practice to give quinine in the depressing diseases its admirers advocate. If the blood is deteriorated in septicemia, it would seem to be the indication to make new and better blood; and as quinine impairs digestion, it is contra-indicated in this disease.

But as men differ in opinion as to the preventive power of sulphate of quinine in septicemia, I give the views of an eminent obstetrician of St. Louis, as advanced in a lecture on natural labor, to which I was invited in last December. The professor advised the class to give every parturient woman twenty grains of quinine every morning for seven days. The reason given was to prevent septicemia.

How often has septicemia resulted from natural or even unnatural labor? Shall that which was ordained for life be in us death? Is parturition a physiological or a pathological act? To say the latter, is a libel on nature and an insult to God!

The diligence and meddlesomeness of the brethren of late may have changed this natural to an unnatural process somewhat.

The only curse imposed upon our first mother for the too free indulgence in fruit was that she should bear children in sorrow and pain. Nothing was heard about septicemia till the gynecologists came to the front.

Since Adam and Eve stepped out of the garden, a good many women have gone through the puerperal state unscathed who never heard of quinine. Millions of heathen women annually pass through this ordeal unpoisoned and

unquinineized. If civilization and refinement has brought us to this, had we not better return to barbarism?

Every young gentleman who listened to this remarkable lecture went home fully impressed with the deadly tendency of parturition. Still his fears may be somewhat assuaged by the pleasing reflection that 140 grains of this ringing antiseptic will surely carry his patient safely through the "valley and shadow of death."

"Far better dead and never see,
Than poisoned by this monster be."

Whether or not these are the teachings of all the colleges in America at present, I have not the means of knowing, but it probably is so, as medicine is nearly as much the creature of fashion as dress.

Errors in the theory and practice of medicine committed by obscure physicians in the rural districts can do but little harm; but false dogmas, coming from the colleges, carry wide-spread destruction in their wake. Heresy from the pulpit will corrupt the church.

Shall we, as do lawyers, blindly follow precedent, right or wrong, kill or cure?

One who reads the medical literature of the day may well believe the whole earth poisoned. Formerly it took heat, moisture and vegetable decomposition to generate malaria; but, since quinine has come into general use, it is found from the depth of artesian wells to the snow-line. The victims of the late expedition to the north pole probably perished from this fell destroyer.

This poison lurks in every breath;
The purest air engenders death.

It is far easier to see the errors of the fathers than our own.

It requires courage and brains to raise one's self above one's surroundings, either in politics, religion or medicine.

To disbelieve in the fallacies taught in the schools may be rank heresy, deserving the pillory or stake, still some men prefer martyrdom to apostasy.

A FAMOUS surgeon advises one of his patients to undergo an operation. "Is it very severe?" asks the patient. "Not for the patient," says the doctor; "we put him to sleep; but very hard on the operator." "How so?" "We suffer terribly from anxiety. Just think, it only succeeds once in a hundred times."—*Old Joke*.

Selections.

Nature and Treatment of Bright's Disease.

In a recent number of *L' Union Medicale du Canada* we find the following statement of the views of Prof. Semmola (of Naples) on the nature and treatment of Bright's disease, which we think worth reproducing:

Bright's disease is a general derangement of nutrition, caused by the prolonged influence of damp cold upon the skin, in consequence of which, the albuminoids of the blood, becoming abnormally diffusible and unassimilable, pass out by the kidneys; but at first, that organ presents no anatomical lesion. After a certain time, however, this passage of albumen through the kidneys causes therein the lesions of diffuse nephritis. At the same time that albumen appears in the urine, it also appears in the other emunctories; there is an *albuminocholia*.

Bright's disease has been produced in dogs by Prof. Semmola, by subcutaneous injections of the whites of eggs. By this process the following effects are produced, after fifteen or twenty days: Albuminuria; albuminous dyscrasia, with progressive diffusibility of the albumen of the blood; diminution of the production of urea; dropsy; nephritis. This experiment is wanting in only one particular, and that is the primary influence of an impairment of the function of the skin, which can not be artificially produced.

Prof. Semmola avails himself, however, of the clinical features of scarlatina to prove the pathogeny of albuminuria. The albuminuria, which appears in scarlatina, when the disease is at its termination, when the patient is undergoing desquamation, and is in full convalescence, is not the result of an infectious nephritis from the elimination of microbes. It results from a diminution of the functional activity of a skin affected by the scarlatinous process. During the acute period of the disease, as the patient drinks only a little milk, a perfect equilibrium is kept up between the weakened cutaneous function and the quality as well as the very small quantity of albumen ingested. But, when complete alimentation is again begun, before the skin has time to revive its function, the blood becomes surcharged rapidly with an excessive quantity of albuminoids, which,

not being assimilated, escape by the kidney. The same result can be brought about by a sudden chilling of the skin, in spite of the persistence in a strict dieting.

With regard to the cutaneous lesions which exist in Bright's disease, which have been hitherto little studied, they are, indeed, worthy of attention. There is an atrophy of the layer of Malpighi with proliferation of the connective tissue of the dermis and atrophy of the sudoriferous glands.

He concluded that Bright's disease should not be classed as a nephritis, but as a pathological type of the class of diseases of nutrition, as clearly shown by its etiology, the slowness of its development, the progressive diminution in the process of the combustion of albuminoids, and finally a diffuse nephritis, the typical form of which is the large white kidney. For a long period, however, it is curable, if all necessary means are used to restore the elements of the skin. He sums up the following line of treatment for the disease during the long period of its curability:

1st. An exclusive milk diet. Nitrogenous foods should be prescribed at all stages of the disease, and especially the highly nitrogenous articles of diet. Milk acts in a wonderful manner on victims of Bright's disease. It acts only as a model aliment, and not as a diuretic. The milk diet should be kept up for a long time, and, only with exceptional precaution, should be tried the tolerance of meat or yellow of eggs.

2d. Methodical and repeated applications to the skin of dry friction, massage, the Scotch douche, and often, too, sweatings by means of the sweating-room. Cold hydrotherapia must be rejected. It is always badly borne by patients, even in the beginning of the disease, on account of the difficulty of getting the effects of cutaneous reaction. For the same reason violent muscular exercise is harmful.

3d. The patient should live in a medium temperature—dry and constant. In winter, especially in variable climates, the patient should not go into the open air, but should take exercise in a room with the temperature at 18° to 20° C. (64° to 68° F.).

4th. Administration of the iodide and chloride of sodium in increasing doses according to tolerance.

5th. When, after two or three weeks or more, if the albumen has not yet entirely disappeared from the urine, and above all, when the anasarca is completely ended, it is necessary to substitute for the iodide of sodium, either the

phosphate of sodium or small repeated doses of the hypophosphite of sodium or lime, to the amount of three or four grammes in the twenty-four hours.

6th. The methodical employment of inhalations of oxygen.

7th. Renounce the employment of astringents, not only as useless, but as hurtful remedies.

Exploratory Incision as a Dernier Resort for Diagnostic Purposes.

BY R. STANSBURY SUTTON, M.D., OF PITTSBURG, PA.

MANY cases will present themselves in which a diagnosis is not possible. It will not be possible to determine anything beyond a certainty that the disease is within the abdominal or pelvic cavity. A tumor may be present; no certainty of its relations may be ascertainable through the closed abdominal wall. What is to be done? Will we satisfy our conscience that our duty is done and turn away, or temporize with drugs? It is to be hoped not. *In every man or woman dying or in danger of dying from an obscure intra-abdominal trouble, an exploratory incision should be made, and the diagnosis should, if possible, through it, by touch, or touch and vision, be perfected.* Is such a procedure to be lightly undertaken? By no means. But with the following precautions it is safe:

1. Have the patient clean from head to foot, and the surface of the abdomen especially clean, made so by soap and water and a brush. Surround the parts with clean towels fresh from the hot iron.
2. Have your hands and forearms scrupulously cleaned with soap and water and turpentine.
3. Have your instruments clean and immersed in hot water.
4. Thoroughly etherize your patient.
5. Make an incision two inches long; before opening the peritoneum secure every bleeding vessel. Pass in two fingers and make search.
6. If you have failed to gain the desired information, withdraw your fingers, pass in a sponge, locate it directly under, below and above the wound, and enlarge the latter with a clean cut over the sponge, to a length sufficient to let in your hand. Secure all bleeding vessels, withdraw the

sponge, and pass in the hand and complete the search. Through such a wound much may also be seen. *Never make a longer cut than is necessary, and make a clean cut.*

7. Before closing the abdomen cleanse the cavity thoroughly, but be gentle in your use of the sponges; if you deem it necessary, pour in a pitcher of clean warm water and wash the cavity out. Gently sponge it dry. In closing the wound, pass the sutures over a flat sponge laid beneath the wound.

8. Reject the use of carbolic acid or bichloride of mercury in your operations; they are useless *and a source of danger*. They may be useless incleansing your hands prior to operating, *but they are to be kept out of the peritoneal sac*. Keith, Tait, Bantock, and others abroad have proved the worthlessness of carbolic acid, and I have for some time been satisfied from experience that they are right.

9. Never permit any one but the operator to pass a hand into the cavity, unless his hand has been prepared by careful cleansing with soap and water and brush, and with turpentine or a 1:200 solution of bichloride of mercury. Even a 1 in 20 per cent. solution of carbolic acid is not reliable for this purpose.

10. In tying the sutures, dry the lips of the wound as you go along with a bit of iodoform gauze.

With the above precautions I have opened the abdomen many times, and have yet to see a single wound so treated fail to unite by first intention.—*Journal of Amer. Med. Association.*

Examination of the Urine.

BY J. MILNER FOTHERGILL, M.D.

There is an aspect of albuminuria, in my opinion, too little considered. If there exist a constant drain, no matter whether of serum-albumen or peptones, the system will be imperfectly nourished. A case came under my notice two years ago in the form of a Cambridge undergraduate, who was pale and weak, and feeling unfit for his work. Albumen was present in the urine in unmistakable quantities. In that case two views could have been taken up and maintained perfectly honestly. My opinion inclined to the case being one of malnutrition in which the loss of albumen played a

part. At any rate the lad got well, and the albumen disappeared from the urine. Then again, persons who have had malarial fever are very apt to pass some albumen. One well-known surgeon left India and came home, believing that his health was broken and gravely impaired; but after ten years he is still hale and vigorous. We often talk the matter over, and regret that so much misapprehension exists on the subject. In any interference to the portal circulation, albumen is liable to show itself in the urine. When the interference is removed the albumen disappears.

Bearing in mind these facts, the obvious conclusion is this: It is not proper to assume that albuminuria indicates Bright's disease. A medical man has no moral right to alarm a person by announcing Bright's disease merely on the discovery of albumen in his urine. It is as unjustifiable as to inform a man his house is on fire merely because his chimney is ablaze. Before saying anything to the patient the urine should be carefully searched for tube-casts, and if they are discovered, then the announcement is justifiable, but not until.

Of course, no man but a fool or a crank would undervalue the significance of the evidence furnished by the test-tube. Say it is a case of cardiac dropsy. The appearance of albumen in the urine while the case is under treatment is almost the herald of despair. But here the circumstances of its appearance are known; but if a patient comes under notice with cardiac dropsy, and the urine is found to be albuminous, its significance is by no means so ominous. Any cause of venous fullness in the kidney may give rise to albuminuria; but it is very important what the cause is, as that will determine the significance to be attached to the albuminuria.

An albuminous condition of the urine derives its import from its associations, and the men who disturb the peace of a family merely because the urine in a test-tube gives evidence of albumen, are scarcely fit for their vocation, and certainly take a very oblique view of the moral obligations of a family physician.

Again, as to the presence of sugar in the urine. Many medical men have lost their heads in a manner nowise creditable to them on finding some sugar in the urine, whether their own or that of some one else. The discovery of sugar should at once put the medical man on the alert, just as does the discovery of albumen. In either case the medical

man should at once be upon his guard; but this a very different matter from abruptly delivering an adverse opinion. The latter is very much like condemning a suspected man without going through the preliminary of a trial to ascertain if he is guilty. The evidence against him at first sight may seem damning, but the process of trial may demonstrate his innocence and not his guilt. When albumen or sugar is detected in the urine of a patient, then a searching examination into the facts is incumbent upon the part of the physician.

As to sugar, corpulent persons often pass saccharine urine, and especially corpulent, gouty persons. What significance glycosuria possesses under the circumstance is unknown to me. One such case has been under observation for over eighteen months. There were other symptoms present telling that the case was something more than mere glycosuria. While allaying the lady's apprehensions as to any immediate danger, both she and I firmly believe she will die of diabetes. And why do we both believe this? Because from family circumstances she is subjected to worry and annoyance from which she can not emancipate herself. But as to other cases, they seem to go on for years without any deepening of the condition.

There are other circumstances, however, under which glycosuria is found which give it much significance. All physicians of any experience have met with cases where an acute condition of diabetes is started by a sudden shock or fright. Such associations are matter of notoriety. But the association of chronic diabetes mellitus with mental conditions is far less generally realized. Yet those who are giving special attention to the subject are beginning to be strongly of the opinion that diabetes is casually dependent very often upon "carking care" disturbing the liver as regards its glycogenic function. If this view can be substantiated, and I for one think it can, then the appearance of sugar in the urine, even in small quantity and fitful as to presence, is terribly suggestive. If such a case be watched, it will be found to deepen in gravity; for a while a strict diabetic dietary may afford relief, but it turns out to be a case of "the further in the deeper." Of course this is the more likely to occur if the patient continue to carry his load of care. If, however, the load be lightened, the result may be otherwise. The glycosuric condition may remain static for years. With one such case I am intimately familiar.

Diabetes—not merely glycosuria, but something more—is a malady which does not necessarily progress with steady, relentless tread to the tomb. We must learn to regard it as a disease which may take its origin in small beginnings and deepen to death; or be arrested, as the case may be, and according to what measures are taken. If this view be well founded, the appearance of sugar in the urine is fraught with high significance. Nor is the difficulty to be met by gluten bread and almond biscuits. That is narrow, not the wide view of the subject.

When a hard-working business man is a patient, in my opinion, a regular periodic inspection of the urine should be made, and when traces of sugar even are detected, to keep a close watch over the patient. If small quantities are pretty constantly present, then he should be told frankly and honestly his true position, and the facts looked into the face. Such a man will be liable to temporary aggravations of his condition on any passing extra mental perturbation. Such a case is well known to me, where a glycosuric man is a diabetic when anything gravely puts him about. In such cases the urine varies hand in hand with the general condition; and the urinometer will register the case pretty accurately.

Then there are cases of glycosuria where the amount of sugar is considerable in the urine passed three hours after a meal; while the urine passed in the morning contains but little sugar. Speaking broadly, such a condition carries with it a better prognosis than where the morning urine differs little from that passed at other times.

Sugar, like albumen, in the urine is a stiff hint to a medical man to put on his studying cap!

Examination of the urine as regards the patient's account of it, is grossly neglected; just as the reaction of one sample of urine in a test-tube is too highly estimated at the present time. And if the points put in this paper be conned over by the reader, and applied to his cases under care, I venture to think some mistake—potential or actual—may be avoided. A negative lesson it certainly conveys. Let not the reader abandon test-tube examination of urine; but let him make it more perfect and more extended as to time and duration of observance. What I denounce—and I do not denounce it more heartily than I detest it—is the too common practice of giving grave opinions from a casual observation. And to point out the sources of fallacy, as has

been done, is the only way to secure more careful examination. Certainly no patient should be told he is the victim of Bright's disease until a patient microscopic examination has been made. In the same fashion must the significance of sugar be determined—only here the microscope can lend no service, viz.: by common sense and special knowledge. Rash medical opinions rapped out on insufficient evidence may appear to establish the cleverness of the practitioner; but it is positively certain they have added a distinct amount to the sum total of avoidable human misery; and therefore constitute a practice to be heartily denounced and reprobated by every one who loves his fellow-men.—*New England Medical Monthly*.

Extirpation of the Larynx.

ON January 20, Dr. J. H. Branham performed the rare operation of laryngectomy or removal of the entire larynx, at Bay View Hospital, for epitheliomatous growth within the larynx. The operation was successfully done, and hopes were entertained that the man would recover, but a low form of pneumonia soon set in and proved fatal about two days later. This is certainly the first case in which this operation has been performed in Maryland, and it is probable that not more than six such operations have been done in the United States. Complete removal of the larynx was performed first by P. Heron Watson, of England, in 1866, though Billroth, of Vienna, is generally supposed to have been the originator of the operation. Billroth's operation was performed in 1873. Like excision of the pylorus the status of laryngectomy is not yet fully determined. The larynx has been excised probably more than a hundred times, with a direct mortality of 44 per cent. as computed by Dr. Eugene Hahn, of Berlin, from 91 tabulated cases; the mortality from partial excisions is but 13.7 per cent. as computed by the same writer. At the time of the publication of Dr. Hahn's paper, he had himself extirpated the larynx eleven times with ten recoveries. Carcinoma offers the most frequent indication for removal of the larynx, but other neoplasms, and obstructive affections may also demand its removal. If an operation is to be done, it is evident that it should be done early, whilst the growth is limited to the larynx. If the patient survives the shock of

the operation he is still exposed to danger from pneumonia and septic bronchitis. A large number die in the first two weeks from these causes, and these are the most frequent causes of death, as the operation, though severe, can be performed without very great danger from shock or hemorrhage. As the great majority of those who survive the operation die subsequently from recurrence of the growth, it may be asked, what is the use of undertaking such a serious operation? a question which has been pretty clearly answered by Dr. J. Solis Cohen, who claims that better results will accrue from tracheotomy than from excision. The results of laryngectomy are better for sarcomatous than for carcinomatous growths, but the average mortality is still excessive. As the greatest source of danger lies in the entrance of septic material into the larynx, at the time of, and subsequent to the operation, the efforts of surgeons have been largely directed to the avoidance of this accident, by the use of suitable tamponading devices. Trendelenburg's tampon-canula has been used many times for this purpose, with pretty satisfactory results. This is a tracheal tube surrounded by a rubber bag, which is inflated after the introduction of the tube, and the lumen of the trachea is thus filled and the entrance of fluids prevented. Dr. Hahn, whose results have been marvelous, considers that much of his success is due to the use of his canula, which is wrapped with compressed sponge. Owing to the intimate relations of the larynx with the mouth, pharynx and œsophagus, it is exceedingly difficult to keep the parts thoroughly aseptic, but this may be done by iodoform gauze packing of the wound, which will require frequent changing. As has been stated, the operation should be reserved from those cases in which the growth is pretty thoroughly circumscribed within the larynx; when the surrounding parts are much involved, better results will follow tracheotomy. We believe, therefore, that excision of the larynx in appropriate cases is a justifiable operation; but in order for it to be successful, the neoplasm should be limited to the larynx. When the growth involves other structures as well, tracheotomy will be the only alternative. An incomplete removal of the disease is almost certain to be followed by a more rapid development, than if no operation had been performed. In a few weeks after the removal of the larynx, the power of speech may be restored by means of the device of Gussenbauer which consists of a vibrating reed attached to the tracheal canula. The voice,

though metallic and monotonous, suffices for purposes of conversation.—*Md. Med. Journal.*

The Modern Treatment of Wounds.

BY W. A. M. WAINWRIGHT, M.D., OF HARTFORD, CT.

Read before the Hartford County Medical Society, October 13, 1886.

THE text of my little sermon is taken from page 8 of the *Hartford Times*, of September 25, 1886, column 1, and reads as follows:

Hubert Wheeler and wife, of this city, have been at Barkhamsted for some time. Mr. Wheeler was severely injured last spring by having one finger nearly torn off while engaged as brakeman on a railroad. Blood-poisoning followed, and he is now slowly gaining. His hand and arm below the elbow have been lanced twenty-four times.

This looks like a picture from the hand of one of the old masters; and to those of us who walked the hospitals, twenty years ago, how true a picture it is of what was then a daily sight.

How many cases, of which this is a type, would the hospital records of those days disclose. I doubt if such a history, of any kind of wound, could be found, to-day, upon the records of any well-conducted hospital, where the modern scientific antiseptic treatment of wounds has been introduced, and is properly carried out. And that such a case can occur to-day in private practice, its history finding its way into public prints, is a fact which "must give us pause;" and which must bring this question to our minds, "Have we, as surgeons, done our duty in giving to our patients the inestimable benefits which follow the modern antiseptic treatment of wounds?" I fear that the question must be answered in the negative. Whatever may be our particular views as to the "germ" theory; whatever may be our particular fondness for, or aversion to, the microbe—be he bacillus or micrococcus—this fact remains, that Sir Joseph Lister has given a boon to suffering humanity, which fully entitles him to be named with Ambrose Paré, Edward Jenner, or Horace Wells, as amongst the greatest of discoverers in our medical world. I do not propose to recount to you the details of the method of treatment of wounds in

vogue twenty years ago; still there is one part of it which I should like to recall to your minds. A wound—an amputation for instance—was in those days, with great pain, and with the interrupted silk suture, sewed up as tight as a drum; the operator, after it was done, priding himself upon the “beautiful” appearance of the stump. Within thirty-six hours the “beautiful” appearance had, in most instances, departed, and in its place was a dark, swollen, ominous look, to relieve which, more or less, generally more—of these carefully inserted sutures were, with great discomfort to the patient, removed, in order to let out the ill-favored grumous serum and blood which had been so carefully dammed up within the wound. The process reminds one of that king of France spoken of in the nursery legend, who “with twenty thousand men marched up the hill, and then—marched back again.” It is a wonder to me that some one did not a long, long time ago find out that it was a work of supererogation.

I will not dwell upon the inflammation, septicæmia, pyæmia, or erysipelas, which were very apt to follow. In fact, it was rather expected that our hospital wounds should do badly; and if they did well we thought ourselves fortunate. How different the results are now in those same hospitals. Capital operations of all kinds have lost their terrors. Hip amputations, ovariectomies, laparotomies and the like are now performed with almost a certainty of success. Formerly the chances were all the other way. For a wound to do badly after an operation nowadays, is a marked exception to the existing rule.

What has brought about this change? The surgeons of to-day are no more skillful in operating than they were then. There has been no beneficent alteration in the human economy, whereby wounds are better borne now than they were then. It is simply due to Professor Lister’s discovery, viz.: that care, cleanliness, drainage, and the prevention of fermentation in wounds, would enable the surgeon to walk fearlessly, where before he had hardly dared to tread; and would rob his knife of more than half its uncertain terrors. It is not my intention to write a dissertation, which might be learned or otherwise—on wounds, incised, punctured, lacerated or contused; or to take up your time in speaking of the theories upon which the antiseptic treatment is based, or the arguments pro and con. These topics must be sufficiently familiar to you. The object of this paper is simply

to lay before you, in detail, the different steps to be taken in treating a wound by the modern antiseptic method.

The principle is the same in the treatment of all wounds, variation of detail being, of course, necessary in the different classes. And I would here commend to your favorable notice a little monograph written by Dr. Robt. T. Morris, of New York; and recently published by G. P. Putnam's Sons, entitled, "How We Treat Wounds To-day;" which, while being somewhat egotistical in its diction, is still a most admirable book, and one whose precepts we would all do well to follow. The antiseptic treatment of wounds is based upon the fact that it is necessary to keep the microbe out of them. Whether he is the cause or simply the accompaniment in the suppuration of wounds I will not, as I said, stop to discuss. The fact remains that the day of looking and praying for "laudable pus" is past and gone, and that if we can keep, as Artemus Ward would have said, this "pesky cuss" out of our wounds, they will do well; if we let him in, they will do badly. Now how can we keep him out? By absolute cleanliness and disinfection, which is brought about by proper cleansing of the parts before and during the dressing, and by keeping them clean and disinfected afterward. Of all the so-called germicides, the corrosive chloride of mercury is at the present day considered the most efficient. It is to be used freely in solution varying from $\frac{1}{1000}$ to $\frac{1}{5000}$. The $\frac{1}{2000}$ is the best for general use. Sixteen grains to one quart of water makes a $\frac{1}{1000}$ solution; not exact, but near enough for all practical purposes. The $\frac{1}{1000}$ solution is said to be an absolute destroyer of germs, but it is too strong to be allowed to remain in wounds, and if used should be washed out with a weaker solution— $\frac{1}{5000}$. Whether this or any other so-called germicide is a better agent for the disinfection of wounds, than pure distilled water, remains to be seen. But the bichloride solution is easy to obtain, does no harm at least, and should be used until something better is found to take its place.

It has been held by many that the minute details in following out the antiseptic plan of treatment are entirely unnecessary, and almost worse than useless. It is very certain, however, that those surgeons have the best results who follow out the details most carefully.

The spray has in general surgery been abolished by the majority of the surgeons; irrigation having taken its place.

In order to treat a wound antiseptically, the following articles are absolutely necessary :

1. An antiseptic fluid—the bi-chloride solution being the best.
2. Antiseptic drainage tubes, either bone or rubber. Strands of catgut and horse-hair are also used for this purpose.
3. Antiseptic catgut, or silkworm gut, for ligatures and sutures.
4. Antiseptic gauze.
5. Antiseptic cotton.
6. Antiseptic bandages.

The following articles are not absolutely necessary, but are important and useful accessories :

1. Iodoform.
2. A large fountain syringe to be used as an irrigator.
3. A rubber sheet to be applied around the part operated upon.
4. Lister protective—oiled silk—to put over the closed wound.

The steps to be taken in carrying out the antiseptic treatment of wounds are as follows :

We will take as an example a leg amputation.

1. The rubber sheet is to be applied to the leg by being tied some distance above the point of amputation. It is convenient to have a hole cut in the sheet, through which the limb can be put. By this means the rest of the body will be protected, and a gutter will be formed to carry off the irrigating fluid and blood into a receptacle beneath the table. To aid this process, it is well to elevate two legs of the table by placing a book or block of wood under them.

2. The parts to be operated upon should be thoroughly washed with soap, and the bi-chloride solution ($\frac{1}{1000}$) (a bi-chloride soap is now made which can be used with good effect). Then the parts should be carefully shaved and again washed off with the antiseptic solution. By this means, dirt, hair, dried epithelium, and all interloping microbes are gotten rid of. An Esmarck's bandage or tourniquet having been applied, the amputation is performed, an assistant using the irrigator freely.

3. After all bleeding points have been secured by catgut ligature (and in the case of the larger arteries, three knots should be tied, and the ends not cut too short, in order to prevent slipping), the wound is to be thoroughly washed

out with the bi-chloride solution ($\frac{1}{2000}$). The longer time taken in this part of the proceedings the better.

4. One or more bone or rubber drainage tubes are inserted, care being taken that drainage of the deepest parts of the wound is provided for; and it is well to insert an ordinary safety-pin through the exposed end of the tube, so that it may be kept in place. The wound is then to be closed with a catgut suture, using the uninterrupted glover's stitch.

5. The line of suture is then to be freely dusted with iodoform and a strip of the Lister protective put over it, in order to prevent the other dressings from sticking to the wound. Several layers of antiseptic gauze, which have been wrung out in the bi-chloride solution, are then to be loosely placed over the wound. A thick layer of antiseptic cotton is then applied, the whole being kept in place by a bandage, which has also been rendered antiseptic by immersion in the solution. Bandages made out of cheese-cloth are the best, as they can be easily wet, are soft and light, and can be very evenly applied. The dressing is then complete. The wound, where it is possible, should be slightly elevated and kept free from disturbance. If bone drainage tubes are used, this dressing should not be removed for a week or ten days. It will then be found that the tubes have been absorbed, the wound healed, and nothing remains but the safety-pin and a few dried shreds of the catgut suture, which can be readily brushed away. If the rubber drainage tube is used, the dressing must be removed in three or four days, the tube taken out, and a second dressing applied, with all the antiseptic precautions used in applying the first one. The second dressing may remain undisturbed until sufficient time has elapsed for the complete healing of the wound. Of course every wound will not do well even under this treatment, and the thermometer gives us early indication when any trouble is brewing. If after the second day, there should be a rise in temperature to 102° or more, take off the dressing and find out what the trouble is. The after-treatment in such a case must depend upon circumstances. It may be best to treat the wound after the "open method" instead of again attempting to use an absolutely antiseptic dressing. As I have remarked before, there must, of course, be many variations in the minor details, as for instance, in the matter of sutures, sometimes it is best to use silver or iron wire. Such things must be left to the judgment of the

surgeon. Furthermore there are many wounds where the antiseptic plan can not be entirely carried out, and others, as in the face for instance, which do not require it; but *antiseptic precautions* can, and should be carried out in every case. And these can be embraced under the following rules, which should be absolute:

1. The wound must be made aseptic before any dressing is applied, and

2. Nothing should come in contact with the wound, which has not been rendered antiseptic by being immersed in a disinfecting solution.

Thus the surgeon's hands (particularly the nails) and those of his assistants should be carefully and thoroughly washed with soap and water, and rinsed off in the bi-chloride solution, before undertaking an operation or dressing an important wound.

Since writing the above, I have read the following paragraph in the *New York Medical Journal*:

THE IMPORTANCE OF CLEANLINESS.—In the annual discourse before the Massachusetts Medical Society at its last annual meeting, Dr. R. M. Hodges says: "Dirty finger-nails may communicate a fatal poison, through the trivial operations of surgery which every physician undertakes to perform, or inaugurate the 'private pestilence,' which still sometimes follows in the track of the obstetrician."

The knives and other instruments, sponges, drainage tubes, ligatures, sutures, pins, in fact everything that is to come in contact with the wound, should first be immersed in the solution. Towels wrung out in the solution should be placed about the parts to be operated upon, so that no bacteria-polluted article can come near the wound. The custom of allowing all the bystanders to have a finger in the pie, so to speak, which is so commonly seen at operations, is a most reprehensible one. Keep all unnecessary fingers out of your wound. An instrument once used, should not be used again without being dipped in the antiseptic solution. The surgeon's fingers should be subjected to the same treatment, if during the operation they come in contact with any disinfected article.

I would not have you infer, from my not having as yet mentioned carbolic acid, that I do not value it as an antiseptic. It is of great value, but I do not believe that it is as good an agent for antiseptic use about wounds, as the bi-chloride of mercury. Ligatures, sutures, drainage tubes,

sponges, etc., should be kept in a solution of the acid, and during an operation or dressing of a wound all instruments should be kept in a solution of it. A $\frac{1}{30}$ solution is strong enough for these purposes. For use about wounds, if one prefers the acid a $\frac{1}{40}$ or $\frac{1}{50}$ solution is plenty strong enough.

For the minute details of the method, as applied to the different classes of wounds, and particularly to the treatment of compound fractures, I refer you to Dr. Morris' little book, alluded to above.

In no class of cases are the benefits of this method of treatment more plainly seen than in the lacerated or contused wounds of fingers. You all know from experience, what tedious suppurating, and bad smelling affairs such cases are, under the old plan of treatment; and how often, as in the case of the unfortunate man, mentioned in my text, disastrous results follow such injuries, which sometimes may be very slight at the start. Under the modern method of treatment, even a badly crushed finger is comparatively a light affair, and will heal without the ordinary signs of inflammation, in a way that will surprise you the first time you try it. If Mr. Hubert Wheeler had been treated by the modern antiseptic method, I am sure that his record would not have stood at "*blood poisoning*," and "*lanced twenty-four times*."

Now, many of you may smile at a good deal I have written, and say *cui bono*; but in attempting to carry out the modern method of treating wounds, it should be "*Aut Cæsar aut Nullus*," if we expect to obtain results, which are within our easy reach, and which were never dreamed of in the philosophy of our fathers.—*New Eng. Med. Monthly*.

On the Relation between Erysipelas and Inflammation.

At the Society of Physicians, Vienna, Dr. Hajek said that he had undertaken the researches in question in order to determine whether the streptococcus of erysipelas differed morphologically, pathogenically, and in its mode of growth, from the streptococcus pyogenes; whether as to pathology, each of these two species was pathogenic in its proper way, viz.: whether the first produced only erysipelas, the latter only phlegmons. He first combated the statements of Resenbach and Hoffer as to the differences of these cocci respecting their form and cultures, and said that the slight

differences in the aspect and the quickness of growth were of no importance. The different cultures of these micro-organisms did not show any striking differences, but, nevertheless, they were not at all to be looked upon as identical forms. This became evident from the experiments upon animals which the speaker had performed for the purpose of determining the pathogenic influence of the cocci in question. He, for this purpose, inoculated two series of rabbits with the cultures of the streptococcus of erysipelas and the streptococcus of phlegmon respectively, after the cutaneous and subcutaneous method, and found some differences in both instances. In the cases of inoculation with the streptococcus of erysipelas, he, for the greater part, observed a wandering redness, with swelling of very slight degree. In a small number of these cases there presented itself, after inoculation, an inflammatory nodule, which either underwent resorption or suppuration. An intense swelling, together with the wandering redness, was but seldom observed. As to the streptococcus pyogenes, the greatest number of the rabbits thus inoculated showed an intense swelling, with suppuration; the latter was present when the inflammation process had reached its highest degree. An intense swelling without suppuration was rare. There was never present a wandering redness without swelling, which was observed in most cases of erysipelas; only the most severe cases of erysipelas resembled the usual forms of phlegmon.

Dr. Hajek, therefore, and probably correctly, concluded that the cocci in question were of a different nature. But it was not the difference of the pathogenic behavior of these two species of streptococcus to which he attributed the greatest importance. The reason for which he felt justified in stating that there was an absolute difference between the coccus of erysipelas and that of inflammation was the result of his histological researches. The histological changes in erysipelas first manifested themselves in an inflammation of the lymph-vessels, later on in an inflammation of the interstices of the connective tissue, and only in the most intense cases the tissue around the lymph-vessels is concerned too. As to the cocci of erysipelas, they were to be met with only in the lymph-vessels, and at the most to a very slight extent, also, in the interstices of the connective tissue. The living tissue formed, in general, no particularly favorable soil for the development of the streptococcus of

erysipelas. Moreover, the behavior of the latter, in the progress of the morbid process, was a passive one, as it was to be found only where it was transported by the lymph-current. The behavior of the streptococcus pyogenes to the living tissue was, however, quite different. Here the lymph-vessels and the interstices of connective tissue were filled with close colonies of cocci, the cellular infiltration either being absent or developed to only a very slight degree. Moreover, the streptococcus pyogenes formed close chains everywhere in the cutis, penetrated it in all directions, and perforated even the walls of the blood-vessels. Hence the streptococcus pyogenes had the disposition to represent itself in the living tissue in the form of colonies. Dr. Hajek remarked that the difference of the behavior of these cocci in the living tissue was a marked one; for, even in the most intense cases of erysipelas the cocci were always to be found only in a proportionally small number, and this only in the lymph-vessels.

Dr. Hajek added that in future, in cases of complications of erysipelas with other affections, it will not be permitted to consider the second disease which complicates the case of erysipelas as dependent on this, but that it will be necessary to prove that the second affection was, indeed, produced by the streptococcus of erysipelas. He, for instance, succeeded in doing so in a case in which pleurisy formed the complication of erysipelas, as the streptococcus which was found in the pleuritic exudation, inoculated on five rabbits, produced only the typical complex of symptoms of erysipelas. In a second case, however, in which pneumonia was the complication of the disease in question, no such etiological connection could be discovered between the two affections, as there was found in the infiltrated lung only the "diplococcus pneumoniae," and no streptococcus.—*Vienna Correspondent of Med. Record.*

Late Discoveries.

The medical journals for the last ten years have given accounts of wonderful discoveries in surgical science and of their application in practice—the filling up of large, deep wounds with sponge, and the organization and assimilation of the latter; skin grafting, bone grafting, and the successful adjustment and regrowth of fingers. Recently two other

wonderful discoveries have been reported. One is the organization of rubber within the animal tissues; the other, the organizing of blood-clots, their formation into new tissue, and the application of them to the surer and better healing of surgical wounds.

As to the first, it appears that Prof. Vanlair, of France, had, in a certain case, inserted a drainage tube, of ordinary gray vulcanized rubber, one and one-fourth inches in length and one-fifth in diameter, and that this, at the end of seven months, seemed to have undergone partial absorption.

But on examining it with a microscope, it was found that the substance of the rubber had become truly organized; that the lower end of the tube had become truly assimilated to the surrounding tissue, and had wholly lost its original form; that the part of the tube next above this had lost its original shapeless appearance and had acquired a complex structure, showing fine connecting tissue fibres, with cells of various forms between them, and very numerous capillary blood-vessels.

The other discovery was by Schede, a German expert. The *Boston Medical and Surgical Journal* says: "His reported results are almost marvelous; the blood fills the wound-cavity completely, clots and is gradually replaced by permanent tissue formation. By this method resection (amputation) of large joints has healed by primary union, and large portions of the articular ends of bone have been removed without impairment of their articular function. Two hundred and forty-one operations are recorded by Schede, nearly all of which have healed under one dressing by primary union.

The operations included the amputation of forty large joints, with thirty-seven recovering, with no change of dressing and no leakage. The wound having been duly prepared, the blood is let in and left to organize, the whole being covered with protective silk and other dressing.—*Buffalo Medical and Surgical Journal*.

The Use of an Abdominal Bandage in the Second Stage of Labor.

Up to the commencement of the second stage of labor, the uterus alone is concerned in dilating the neck, but it then seems to call in aid the contraction of the abdominal

muscles, and consequently both the pain and the bearing down are carried to a much higher degree. The pains are stronger, yet nevertheless the woman assists them by voluntarily contracting the abdominal muscles, and as the pains grow stronger and the pains seem to be tedious, then the woman will often call on her physician for help. I believe that this assistance can be rendered by the use of an abdominal bandage, and that by it, in the second stage of labor, we may not only lessen the suffering of our patient, but, at the same time, shorten the duration of labor. Consequently, I use the abdominal bandage for a twofold purpose: First, to lessen the suffering of my patient. To accomplish this, I apply it at or before the commencement of the second stage of labor, making it just tight enough to be comfortable to my patient. Second, to shorten the duration of labor. To accomplish this end, I tighten the bandage when the abdominal muscles are called upon to assist the uterus in expelling its contents. In my first cases, I used simply an ordinary linen towel, which I put around the abdomen of the woman and secured with pins, which I unpinned and tightened as the case demanded. I now use a bandage which I constructed for that purpose, which resembles in shape the lower half of a corset, except I have it open on the side, making a back and abdominal piece, which I unite by means of straps and buckles. Having it open on both sides, I can adjust it more easily to fit different-sized patients.—*Welker, in Therapeutic Gazette.*

Following, Dr. Welker reports two cases in which he used the abdominal bandage above mentioned with astonishing results. The results are: increased frequency and strength of pains in cases where pains have been slow and feeble, with consequent rapid delivery. (Theoretically, the principle of giving support to the abdominal muscles and the uterus during the expulsive stage can but add to the strength and efficiency of expulsive efforts.)

Influence of Drugs Given to Nurses or Mothers on Their Suckling Infants.

We abstract from *Les Nouveaux Remèdes* of August 1, 1886, the following interesting discussion of Dr. Fehling relating to the influence of certain drugs given to nurses on their suckling babies.

1. *Salicylate of Sodium*.—Dose varying between thirty and forty-five grains. Whenever the child is put to the breast one hour or less after the administration of the drug, the salicylate of sodium can be found in the child's urine. After the expiration of twenty-four hours, no traces of it can be found in the urine. Likewise, the salt can not be recovered if the child is put to the breast very soon after the exhibition of the drug. The elimination of the drug terminates simultaneously in nurse and child.

2. *Iodide of Potassium*.—The same results are obtainable. The milk, if analyzed, gives the characteristic reaction. In the child, the elimination has seventy-two hours; in the nurse, forty-four hours.

3. *Ferrocyanide of Potassium*.—The reaction is very distinct in the urine of the nurse, but wholly absent in the child's urine.

4. *Iodoform*.—After prolonged application of iodoform upon wounds of the vagina or vulva, iodine can be recovered from the milk and urine of the nurse, but never from the child's urine.

5. *Mercury*.—The transmission of mercury from the nurse to the mother is very slight and inconstant.

6. The influence of the nurse's diet on the child is illusory; nurses can with impunity eat sour articles (lemons, vinegar,) without thereby influencing the child.

7. *Narcotics*.—(a) Tincture of opium in twenty to twenty-five drop doses. Thornhill claims to have observed a prolongation of the sleep in infants, while Fehling saw neither prolongation of sleep nor constipation resulting from it. (b) Hydrochlorate of morphine. The drug given in medicinal doses does not influence the child. (c) Chloral. Dose, fifteen to forty-five grains. Average length of sleep produced in nurse, two hours. No effects on the child are observable if it is strong and vigorous. If the child is weak and possibly born before the full term, it is advisable to wait two hours after administration of the drug to the nurse before allowing it to suckle. (a) Sulphate of atropine. Injected in the usual dose hypodermically in the nurse, the drug produces very distinct physiological effects in the child. The dilatation of the pupils taking place in the child does not disappear before twenty-four hours; hence, minute doses of the drug exclusively are permissible.—*Therapeutic Gazette*.

Microscopy.

Royal Microscopical Society.

The first meeting of the session was held on the 13th of October, the President, Dr. Dallinger, F. R. S., in the chair.

Letters were read from Prof. H. de Lacaze-Duthiers and Prof. W. A. Rogers, in acknowledgment of their election as Honorary Fellows of the Society. * * *

Mr. Curtis exhibited several of the new apochromatic objectives (with a series of eye-pieces) made of the new kinds of glass from the Jena manufactory, which were examined by the Fellows with great interest, the very high eye-pieces which they carried without "breaking down" being a special subject of comment.

Prof. Abbe's paper, "On Improvements of the Microscope with the Aid of New Kinds of Optical Glass," was read.

The President said he had been greatly interested by the explanation given in Prof. Abbe's paper, and the Fellows would doubtless be glad to know that the 1-12 in. objective was in the room that evening, and fitted to a microscope with a suitable eye-piece, so that its perfection could be seen by those present.

Mr. Cheshire inquired whether the new kinds of glass could be bought in this country, and if full particulars could be obtained as to their refractive indices, dispersive powers, etc., so as to make it possible for similar objectives to be made here in due course by English opticians? The objectives shown that evening gave results which he could only describe as most magnificent.

Mr. Crisp said that a very full and complete descriptive catalogue had been published in which all particulars were given as to the optical qualities of the glass. Indications were given as to the best kinds to be used in the construction of objectives for telescopes, etc.; but with regard to microscope objectives, the subject was dismissed with the remark that "it must be left to the skill of the practical optician to choose the most suitable from the above series. The new objectives show what can be obtained in practice." It was, of course, quite fair to keep such a matter as a trade secret. . . .

Dr. Crookshank said it would, perhaps, be remembered that during the last session he read before the society a paper on "Photo-micrography," in illustration of which he then showed a number of photographs of Bacteria. He had done some further work in that direction, and had brought with him a new negative which he was anxious the Fellows should examine, because it was one in which the flagella of a *Vibrio* were very distinctly shown. It would, no doubt, be known to most of the Fellows that some persons had doubted the existence of a flagellum; but, although it was a thing very difficult to be seen, this was not the first time that it had been photographed. Koch had been able to do this after a process of staining, for which he recommended the use of a watery solution of logwood and subsequent treatment with chromic acid; but he had rather given up the attempt to photograph specimens unless he could get them stained brown. This, however, he (Dr. Crookshank) had not found to be essential when using isochromatic plates; the specimen shown had been stained with gentian violet, and it would be found on examination that the flagella were very distinctly seen. He would also hand round for inspection another negative to show that it was possible to get very good results without staining brown, the specimen being *Spirochæta* from sewage-contaminated water.

The President said that to him it was of exceeding interest to examine the photographs which had been brought for their inspection by Dr. Crookshank, seeing that they depicted objects which for years he had been drawing and studying. Koch had for a long time failed to detect the flagella with his eye, but when he photographed the object the flagella appeared. Now that they were able to obtain photographs in the manner which Dr. Crookshank had so successfully adopted, they would be able to see for themselves all the minute details which had been described. He felt it was a great gain to have photo-micrography so readily and easily at disposal, and personally he felt very much obliged to Dr. Crookshank for bringing the matter before them.

Mr. Crisp inquired if Dr. Crookshank had tried to obtain photographs by means of the new objectives. One of the greatest advantages claimed for them was their use in photo-micrography, apart from the advantage of being able to obtain the same power with a $\frac{1}{8}$ in. objective as he had ob-

tained with the very much higher powers used in producing the negatives exhibited.

Dr. Crookshank said he had not yet had any opportunity of trying either the objectives or the projection eye-pieces. His negatives were taken with a $\frac{1}{25}$ in. by Powell and Lealand. . . .—*English Mechanic*.

Microscopical Technique.

CUTTING SECTIONS OF ANIMAL TISSUES.—Dr. James Reeves, of Wheeling, W. Va., contributes to *St. Louis Medical and Surgical Journal* (Dec., 1886), an article upon section cutting, which receives the name of 'Reeves' method. We will recapitulate its chief points, none of which are, however, new in histotomy:—

1. The tissue is to be first well soaked in ice-cold water, when as fresh as possible, for one hour or two; then in small pieces about $\frac{1}{2}$ in. square and $\frac{1}{4}$ in. thick, placed in twenty times its volume of absolute alcohol. The alcohol should be changed as often as it becomes cloudy, and the hardening should occupy several days, though it may be performed, if haste is necessary, in twenty-four hours.

2. Clearing and embedding.—After complete hardening and dehydrating in absolute alcohol, the specimen is to be transferred to spirits of turpentine or benzole, to remain from thirty minutes to twelve hours, until thoroughly permeated or cleared. Then transferred to bath of melted paraffin, at temperature of not more than 140° F. ($= 60^{\circ}$ C.), to remain from fifteen minutes to eight or ten hours, according to the density. The time in the bath may be determined by the disengagement of air from the specimen, and is concluded when no more bubbles are given off.

3. After this interstitial imbedding, the 'cast' is ready to be made. For this take a piece of writing paper and spread it on any plane surface, and pour on it paraffin till it forms a mass of the diameter of a quarter of a dollar. Then, before the paraffin has had time to harden firmly, lift the preparation from the bath, place it on the cooling paraffin, press it gently down with the finger, set a mold around it, and pour melted paraffin over it until the mold is full. If the process has been properly performed, the tissue will be entirely surrounded and permeated with paraffin. If, in any

part, it is not hard and firm, and well attached to the paraffin, the operation is a failure.

4. The mass then embedded is to be cut in the microtome, or otherwise, and the sections then placed upon the slide. The slide first receives a coating of a mixture of collodion, 1 pt., and oil of cloves 20 parts, and the section is laid upon this. The slide with the section is now heated at not over 130° F. till the paraffin is melted, plunged in turpentine, and left until it is cleared.

5. Staining is now applied. The slide, with the cemented section, is transferred from the turpentine to 95 per cent. alcohol, and kept there until the turpentine is washed out. The stain is now applied.

6. For a mounting medium, balsam 'cut with' collodion is recommended, and the cover-glass finishes the operation.

The Blood Plaque.

In the October number of the *American Monthly Microscopical Journal* there is an article of great scientific interest by Dr. George T. Kemp, of the University of Pennsylvania. It was abridged from the original article in the "Studies from the Biological Laboratory, Johns Hopkins University." We can only make a very brief extract, as follows:

If a drop of one per cent. osmic acid be placed on the finger, and the finger pricked with a needle through the drop, the elements of the blood will all be hardened and preserved in their natural appearance.

If a thin film of this blood be examined with a good lens (magnifying six hundred to eight hundred diameters), the plaques may be seen floating in the plasma among the red corpuscles and leucocytes.

They are pale, homogeneous, variable in size, about one-third to one-fourth the diameter of a red corpuscle. Seen on surface, they are circular or elliptical, and seem at first sight flat, but are very slightly biconcave, as shown when seen edgewise.

The form of the plaque when thus studied never undergoes change. This is not the case with blood drawn and allowed to clot. To study this the following method is adopted: The finger is pricked and a good-sized drop of blood squeezed out and taken immediately upon a cover-

slip; then, as quickly as possible, most of it is washed off by a jet of seventy-five per cent. Na Cl solution from a wash-bottle. The slip is now examined under the microscope. The plaques have the property of sticking to the slip, while the other elements are washed away by the jet; so that on examination the whole field is found filled with plaques, mostly grouped in masses of two to twelve or more.

They are no longer pale and homogeneous, with symmetrical outline; but appear glistening and granular, and their contour has become jagged. These changes are more marked the longer the time which has elapsed before the preparation is observed; and they may be seen to take place step by step while a preparation is being watched. This change progresses until only a granular mass remains, the individual plaques being no longer distinguishable. *Pari passu* with these changed processes may be seen to run out from the granular masses, and, when coagulation sets in, these are usually found continuous with the threads of fibrin.

The threads of fibrin are sometimes deposited as long, needle-shaped crystalloids, which are often seen lying in the field free from any granular masses; but the greater number are formed most thickly around those masses, from which they often radiate.

* * * * *

Dr. Kemp's conclusions, briefly stated, then, are:

1. The blood contains a third histological element—the *plaques*.

2. No evidence that this is *genetically* related to either the white or the red corpuscle.

3. Plaques break down at once when the blood is drawn; other elements do not.

4. Their breaking down intimately connected, in time, at least, with clotting of the blood.

5. The connection between the plaque and the clot not a histological, but a chemical, one.

6. The active agent is most probably fibrin-ferment.

7. Fibrin is deposited histologically independent of any cellular elements of the blood.

8. When the clot is scant, fibrin is deposited as thin, needle-shaped crystals.

Gleanings.

NITRO-GLYCERINE IN BRIGHT'S DISEASE.—The employment of nitro-glycerine in chronic renal disease, for the valuable service in dispelling or moderating uræmic symptoms, is based upon the fact that high arterial tension is the constant concomitant of uræmia. How far it is desirable to habitually employ a remedy having so pronounced an action upon the circulation as nitro-glycerine is yet undetermined; but experience of its value in the diseases which are marked by abnormal arterial tension is accumulating. The latest contribution is by Dr. Kinnicutt, of New York, who has studied the effects of the drug in several cases, with results which harmonize with those obtained by Rossbach and Burzbinski, to which allusion is made. The continued employment of the drug in slightly increasing quantity does not only relieve headache, dyspnœa, palpitation, and other symptoms referable to the uræmic state, but is marked by an increase in the diurnal excretion of urine, together with a notable diminution in the amount of albumen in it. Cases are given where the albumen was estimated quantitatively, and they show that in some the drug has a marked effect in its reduction. At the same time, as one shows, there is often great variability in the albuminuria of chronic nephritis, which renders it important that similar observations should be made on a large scale before trustworthy conclusions can be arrived at. The amount of nitro-glycerine administered should be just within the limit of producing any subjective symptoms. Dr. Kinnicutt's conclusions may be given in his own words: "1. That in nitro-glycerine, given in small doses and frequently repeated, we possess a powerful agent for lowering the increased blood-pressure which is very constantly associated with the development of uræmic symptoms. 2. That it has the power to control or relieve many of the paroxysmal disturbances of the nervous system which are included under the general term of uræmia; of these, headache and asthma are especially benefited by its use, the relief being more marked and continuous than that obtained either by opium or chloral. 3. That its influence upon the daily excretion of urine and serum-albumen in parenchymatous and interstitial nephritis is apparently to increase the former and diminish the latter. 4. That in the systematic and prolonged use of nitro-glycerine in appro-

priate doses, in chronic nephritis, we possess a means of maintaining more or less continuously a lowered blood-pressure, of often averting or relieving critical conditions, and thereby prolonging life."—*Lancet*, June 12, 1886.

REMARKABLE ACCIDENT WHILE TAPPING A HYDROCELE.—The *Compendium of Medical Science* reports the following:

A healthy person, 44 years of age, sought advice at M. Andre Boursier's clinic for a hydrocele on the right side, following an accidental blow received two years before, and increasing in size. M. Loumeau, in M. Boursier's presence, drew off, by trocar, 125 grammes of straw-colored fluid, and then, having satisfied himself that the end of the canula was free in the cavity of the tunica vaginalis, injected gently 60 grammes of a mixture of tincture of iodine with twice its volume of water. All at once the patient complained of severe pain in the cord and loins, with cramp in the right forearm. The ulnar border of the right hand then became flexed, the ring and small fingers being completely flexed, while the index and middle fingers, though extended in the second and third phalanges, were flexed at the metacarpo-phalangeal joint. The thumb also was flexed, and brought near the fingers. Shortly afterward exactly the same position was assumed by the left hand. There were no convulsions or syncope. After a few minutes the "ulnar griffe" began to relax, and the index and middle fingers became flexed completely on the hand which itself became strongly flexed on the forearm. All the muscles of the forearm became hard and contracted. The palmar fascia was strongly retracted, and the palmaris brevis quite tense. On both sides the ulnar contraction had given place to contraction of muscles supplied by the median nerve. The patient was unable to articulate a sound, his tongue hanging loosely in the buccal cavity. The forearms were shampooed, and after nearly an hour the muscles relaxed. Complete recovery followed, and the patient was discharged in a few days. The author surmises that the accident was due to reflex irritation of the nerves of the mucous membrane by the liquid injection.—*American Lancet*.

A NOVEL TREATMENT OF PHTHISIS.—The *British Medical Journal* says that Dr. Bergeon, of Lyons, recommends a method of treating phthisis which has, at any rate, the merit of novelty. His plan is to utilize the effects of sul-

phuretted hydrogen, and this he proposes to do by injecting carbonic acid gas, saturated with sulphuretted hydrogen, into the intestines. If care be taken to secure the absence of atmospheric air, no inconvenience, it is said, results from the injection even of large quantities of the mixture, absorption into the venous system and elimination by the lungs taking place very rapidly. It is claimed for this procedure that, by its means, the use of sulphuretted hydrogen is unattended with any toxic effects, and exerts its influence directly on the lungs themselves. It has been employed in a number of cases at the hospitals of Lyons, Bordeaux, and Paris with great benefit to the patients, even in very advanced cases, and, latterly, similar observations have been made in the consumption hospitals of London, the results of which have not yet been made known. The method has been very much simplified by the introduction of an ingenious but simple apparatus whereby the carbonic acid gas is generated, and saturated with sulphuretted hydrogen, ready for use.

THE CHEMICAL COMPOSITION OF MAN.—From a chemical point of view, man is composed of thirteen elements, of which five are gases and eight are solids. If we consider the chemical composition of a man of the average weight of 154 pounds, we will find that he is composed in large part of *oxygen*, which is in a state of extreme compression. In fact, a man weighing 154 pounds contains ninety-seven pounds of oxygen, the volume of which, at ordinary temperature, would exceed 980 cubic feet. The *hydrogen* is much less in quantity, there being less than fifteen pounds, but which, in a free state, would occupy a volume of 2,800 cubic feet. The three other gases are *nitrogen*, nearly four pounds; *chlorine*, about twenty-six ounces, and *fluorine*, three and a quarter ounces. Of the solids, *carbon* stands at the head of the metalloids, there being forty-eight pounds. Next comes *phosphorus*, twenty-six ounces, and *sulphur*, three and a quarter ounces. The most abundant metal is *calcium*, more than three pounds; next *potassium*, two and a half ounces; *sodium*, two and a quarter ounces; and lastly, *iron*, one and a quarter ounces. It is needless to say that the various combinations made by these thirteen elements are almost innumerable.—*Le Practicien*.

PYRIDINE INHALATIONS IN ASTHMA.—Prof. G. Sée, in *La Union Médicale*, says that if four or five grammes (about

one drachm) of pyridine be poured on a plate and placed in a room containing about 875 cubic feet of air, and the patient—be the form of his disease either neuropathic or cardiac—remain in this room twenty or thirty minutes three times a day, after two or three sittings the wheezing will diminish or disappear, the expectoration will become much looser, and he will enjoy repose, either with or without sleep. In some cases, the improvement persists; in others, the effects of the inhalations last about six to ten days; when this is the case, the iodide treatment must be added. This treatment is very efficacious, but in some persons it causes the pneumonia of iodism, and its usage has to be stopped.—*Le Practicien*.

S. Dandien, in *La Tribune Medicale*, indorses the opinion of Prof. Sée as to the value of pyridine inhalations; and also adds, that it may be used by placing five or six drops on a handkerchief and inhaling. The disagreeable smell may be masked by essences, such as those of thyme, verbenä, citronelle, etc.

FEHLING'S SOLUTION IN URINARY ANALYSIS.—M. Jolly Fehling's solution can show the presence in the urine of peptones, glucose, or an excess of phosphoric and uric acids.

A. Put in a test-tube one part of Fehling's solution and ten parts of urine and heat until boiling begins:

1. The liquid remains blue—*no indication*.
2. The liquid is discolored by a pale yellow, flocculent precipitate, the liquid having an amber color—*peptones*.
3. The liquid takes on an orange tint; after some moments an orange precipitate is formed—*glucose*.

B. Take equal parts of Fehling's solution and urine, and carry to boiling point:

1. The liquid changes a little in color; after some moments' standing, the clear liquid remains blue and the precipitate is a bluish gray—*small quantities of uric acid*.
2. The clear is green and the precipitate greenish gray—*excess of uric acid*.
3. Precipitate in small quantity—*a little phosphoric acid*.
4. Precipitate very abundant—*very considerable quantity of phosphoric acid*.
5. The liquid takes an orange tint; on standing, the clear portion of the liquid takes a brown tint; the precipitate changing to red—*glucose*.

C. Take five parts of the solution and one of urine, and heat to boiling :

1. The liquid does change color—*no indication*.
2. The liquid takes a color varying from dull greenish yellow to vivid orange—*glucose*.

HYSTERICAL ANURIA ACCOMPANIED BY SECRETION OF URINE BY THE STOMACH.—In an article on this subject, Dr. Rossoni makes the following statements :

1. Anuria is not a rare symptom in hysteria. This anuria is established by a peculiar interchange which takes place in the system the nature of which has escaped us.

2. In hysterical cases with anuria, the stomach can be the seat of a more or less abundant secretion of a liquid which presents all the physical and chemical properties of urine.

3. The urinary secretion of the stomach may be arrested without the reestablishment of that of the kidneys. Complete anuria can last two months.

4. Pilocarpine may in some cases hasten the renewal of the function of the kidneys. In some hysterical cases it may occasion, on the part of the salivary glands, the secretion of a fluid having the same physical and chemical properties as urine.

5. Urea artificially introduced into the circulation of a hysterical anuric, who does not secrete urine by the stomach, causes uræmic troubles.

6. On the contrary, urea can be artificially introduced into the circulation with impunity, in doses of sixteen grammes, in hysterical patients who are subject to urinous vomitings.

7. There is no identity between hysterical anuria and uræmia from nephritis, absence of the kidneys following nephrotomy and ligature of the ureters.—*Le Practicien*.

TREATMENT OF A FORM OF DIARRHŒA IN CHILDREN.—In the *British Medical Journal*, July, 1886, Dr. James Braithwaite draws attention to a form of diarrhœa in children, usually occurring after weaning, and from that period to four or five years of age, which is characterized by the most horribly offensive motions, due probably to the growth of the ordinary bacteria of putrefaction. It may be successfully treated by disinfecting the bowel contents by means of salicylate of iron. The following prescription is suitable for a child two years old: Sulphate of iron, \mathfrak{Dj} ; salicylate of

soda, ℞j; glycerine, ℞iij; water to three ounces. One teaspoonful must be given every hour for twenty-four hours—*i. e.*, until the stools are well darkened; then every three or four hours, with an occasional dose of castor oil to clear the bowels well out.

SALOL.—M. Boismont read before the Société de Thérapeutique a report on salol. This agent is composed of salicylic acid and phenol, in the proportion of sixty parts of the former to forty parts of the latter. It is a white crystalline powder, without smell or taste, insoluble in water, but soluble in alcohol and ether.

It has been tried by M. Sahli. He finds that it has an anti-rheumatic and anti-pyretic effect, similar to that of salicylic acid or salicylate of sodium. But it has the advantage of exerting, as is the case with these remedies, no bad effect upon the stomach. It breaks up only in the intestines, and acts as an energetic anti-putrid agent. It is eliminated by the kidneys, and can be detected in the urine by the addition of the perchloride of iron, which gives violet coloration. It is given in powder, in capsules, to the amount of from four to eight grammes a day.—*Le Practicien*.

A NOVEL OBSTETRICAL EXPEDIENT.—Dr. Shutsoff writes, in *Ruskaya Meditsina*, of April, 1886, that he was called to see a woman who had been in labor five days. The pains had begun well, but had since ceased. Upon examination, he saw something black protruding from the anus, and a little pulling brought to light a sausage over seventeen inches long and four inches in circumference. The pains now began again, and the woman was soon delivered of a dead child. Dr. Shutsoff found, on inquiry, that the sausage had been introduced on the recommendation of an old woman of the neighborhood in order to insure the birth of the child by the normal passage. This was probably the old wife's best attempt at supporting the perineum.

A RARE accident has afforded Waldeyer an opportunity for filling a great gap in the anatomy of the full-time pregnant uterus; for, up to the present time, obstetricians have never had a section of a cadaver with a full-term uterus, permitting the relations of the cervical canal to be seen. The *Journal of the Medical Sciences* relates the occurrence which presented the opportunity of acquiring this knowledge. The cadaver was that of a woman who had already borne

nine children, and was daily expecting another confinement, but was killed by a locomotive passing over her at the junction of the thighs with the body. The cadaver was frozen by Waldeyer, sawed, and then hardened in alcohol; numerous plates were then prepared from sections of it, and in their bearings upon obstetrics must be of the greatest importance.

NAPHTHALINE IN URINARY DISEASES.—Naphthaline, which has been used to disinfect the stools, has also the property of retarding the putrefaction of the urine, and may therefore be administered for cases of urinary disorder in which the urine has a fetid odor. Daily doses of one gram and a half of naphthaline for pyelo-nephritis, cystitis, chronic prostatitis and stricture with fistula have rendered the urine sweet in from two to five days. The urine, from being turbid, purulent and alkaline, becomes neutral or acid, and the quantity of pus is diminished. No disorder has been noted in the digestive processes. The drug does not augment the frequency of micturition.—*London Lancet*.

THE CHAMPION EATER OF IOWA.—Camden, Preble County, Iowa (says the *Davenport Democrat*), has a young man who would be a terror to a boarding-house. He is a farmer lad, sixteen years of age, and can do a man's work at the table. On Christmas Day he was weighed before taking dinner; then after eating and walking two miles was again weighed, and had increased his weight within a fraction of eleven pounds. He drinks a gallon and a half of milk with his meal. His friends will wager that he can do this any day, and it has been tested more than once. It is said he is not particular what food is placed before him, so there is enough of it. When he "falls to," everything within reach disappears as if by magic.

RABIES FROM THE BITE OF A CAT.—The death from hydrophobia of a man who was bitten by a cat in the month of August last, was the subject of an inquest at Manchester, England, recently. The man, since the bite, had complained of pains in his right arm. A medical man was sent for, and at once pronounced him to be suffering from hydrophobia. Upon this advice the deceased was taken to an infirmary. When admitted he was in a dying condition; and after lingering for a short time in great agony he expired. The verdict of the jury was in accordance with the

medical evidence, namely, that the deceased died from hydrophobia caused by the bite of a cat.

MANY instances can be found in which the medicine prescribed by the physician has been changed for a cheaper substitute by non-reliable druggists, among which we have seen mentioned one in which thirty grains of quinine produced no signs of cinchonization, but the same dose in Warner's pills produced marked evidences of it. Another in which four ounces of a mixture of bromide of potassium and chloral, with tincture of hyoscyamus and fluid extract of cannabis Indica, in suitable doses were ordered, which only caused nausea, with no soporific effect whatever; but a similar prescription, in which "Battle's Bromidia" was designated, soon produced the desired result.—*Weekly Medical Review*.

SUNSTROKE.—Dr. C. H. Hughes, of St. Louis, Mo., directs special attention to the great value of bromide of potassium by mouth or by rectum in the treatment of sunstroke. He gives from sixty to one hundred and twenty grains during the first hour, and sixty grains every hour or thirty grains every half hour, largely diluted in peppermint water; sulphuric ether freely to head and spine, and fanned away till six ounces are used; ice at the same time to arms, wrists, abdomen, over the heart, legs, etc., and, in extreme cases of comatose collapse, ice-cold water into the bowels with ginger and capsicum, but ordinarily moderately cold water with two hundred grains of bromide of potassium.—*Weekly Medical Review*.

IN RESPONSE to the inquiry, "Can we have a physiological action of any drug without a chemical action?" the *Record* answers as follows: "Certainly not. All vital phenomena are the expressions of molecular changes in the cells, and such molecular change is 'chemical action'—1 equals 2, and 2 equals 3; ergo, 1 equals 3. Vital phenomena equal expression of molecular change, and molecular change equals chemical action. Ergo (see simple syllogism above, $1 = 2$, $2 = 3$; hence, $1 = 3$), vital phenomena equal expression of chemical action; ergo, chemical action produces vital phenomena. We do not see it. Next gentleman."

THE INJECTION OF OIL OF TURPENTINE INTO OLD SINUSES.—Cecchini (*Anuali universali di medicina; Abeille méd.*) reports a number of cases in which he succeeded in causing

the closure of old sinuous tracts by injecting into them a few drops of oil of turpentine with a common hypodermic syringe. The best results, he says, are obtained when the drug is used pure, but it may be mixed with some bland oil, or even with a solution of morphine, as the pain is something considerable. By this simple treatment, the author has cured five anal fistulæ and six sinuses connected with carious bone. The turpentine is thought to exert a stimulating action on the walls of the sinus, whereby healthy granulation is promoted.—*New York Medical Journal*.

PRURITUS PUDENDI.—A Cincinnati physician sent the following prescription to the *American Lancet*, of Detroit, as a cure for *pruritus pudendi*:

“R. Sodii Biboratis,
Acidi Sulphurici,
Glycerini, aa ʒij.

“M. Pledgets soaked in this and placed in the vagina at bedtime, to be withdrawn in the morning.”

A correspondent writing from Honolulu, Sandwich Islands, to the editor of the *American Lancet*, wishes to know “what would be the condition of the vagina in the morning?” What would it?

THE *British Medical Journal*, in its retrospect of the year, speaks of cocaine in ophthalmology as follows: “The hopes that were entertained of the value of this drug have been fully justified; it has proved an efficient anesthetic for almost all operations on the eye, and but few accidents have followed its use. Some of these, such as desquamation of the corneal epithelium, can be guarded against by keeping the eyelids closed between the instillations; while others, there is reason to think, were not due to the cocaine alone, but to the combined action of it and corrosive sublimate.

A SUCCESSFUL FOOD FOR INFANTS.—Douglass H. Stewart, M. D., 332 West 47th Street, New York, reports as follows: “I have made a test in above fifty cases of the Lactated Food you so kindly sent to the Northwestern Dispensary for me, and can only add that in every instance there was an improvement more or less marked. I have had such poor success with ‘——,’ ‘——’ and kindred foods that I employed your preparation in rather a faint-hearted way at first, but after one or two trials was convinced that Lactated Food is all you claim for it.”

Book Notices

DISEASES OF THE LUNGS AND PLEURÆ, INCLUDING CONSUMPTION. By R. Douglass Powell, M.D., Lond., Fellow of the Royal College of Physicians; Physician to the Middlesex Hospital and to the Hospital for Consumption and Diseases of the Chest, at Brompton; Late Assistant Physician and Lecturer on Materia Medica at the Charing Cross Hospital. Third Edition, Rewritten and Enlarged, with Illustrations, Including Two Lithographic Plates; Being Vol. XI. of Wood's Library for 1886. New York: William Wood & Company.

The author states in the preface that the present volume is an amplified edition of the work on *Consumption and on Certain Diseases of the Lungs and Pleuræ*, which was published in 1878. The entire work has been reconsidered, and for the most part rewritten; and new chapters have been added on the Physical Examination of the Chest; on Asthma; on the Etiology of Phthisis; on the Complications of Phthisis; on the Surgical Treatment of Pulmonary Cavities; on Hydatids of the Lungs; and on Mediastinal Tumors.

The author has devoted comparatively a large portion of the work to treatment, which fact, we think, will tend to make the work more acceptable to those who consult its pages for information. Only those measures of treatment, however, have been advocated of the value of which the author has been practically convinced; and many medical measures, consequently, have been omitted or only barely alluded to. This plan, we have no doubt, will be satisfactory to the reader, for he will feel more like relying upon remedies mentioned under the circumstances—knowing that such have been employed by the author and have his confidence.

The first chapter of the work is devoted to the anatomy and functions of the lungs; the second chapter to physical examination of the chest. In the second chapter a few pages are occupied on the *Microscopical Examination of the Sputum*. It is stated that valuable information can be gained by examining the sputum with the microscope in the various affections of the lung. It is only necessary in

order to do this, to spread a small portion on a glass slide and cover it with a thin glass cover.

In examining sputum or saliva of the mouth with the microscope, dark rings will be frequently observed. These are caused by air becoming entangled in the fluid. After placing a portion of sputum on a glass slide and covering it as described, the cells will be easily observed. In order to bring out the nuclei plainly, put a drop of acetic acid at the edge of the glass cover, and let it permeate beneath and mix with the sputum. Beginners should be careful not to mistake particles of dust, cotton fibers, and other foreign bodies, which have accidentally gotten mixed with the sputum, for objects of grave import. Persons having microscopes should so familiarize themselves with the appearance of cotton and wool fibers and other common objects under the microscope that they can recognize them instantly. The sputum of pneumonia will be found on examination to contain blood corpuscles uniformly diffused throughout the mucus. In phthisis, when the lung is breaking down, shreds of pulmonary tissue may be detected by careful manipulation; and also pus corpuscles in abundance. Acetic acid will plainly exhibit the nuclei in the case of the latter.

In some rare cases, especially in children, Dr. Powell says, the purulent fluid in empyema has been absorbed, the pus cells having undergone fatty degeneration. In some other cases the fluid portion of the effusion is absorbed, and the remainder thus inspissated is deposited in a thick layer on the pleura. The spontaneous disappearance of such effusions is, however, too uncommon to be expected; and the process of reabsorption is one too full of peril to be anticipated with anything but dread.

Nearly half the work treats of the different forms of phthisis. He divides the subject of phthisis into three classes, and these into varieties. The first class is pneumonic phthisis, which he divides into varieties as follows—alveolar catarrh; catarrhal phthisis; acute pneumonic phthisis—(a) confluent form, (b) disseminated form; chronic pneumonic phthisis; fibroid phthisis. The second class is tubercular phthisis divided as follows: Acute; chronic; acute tuberculosis; rather an infective complication of phthisis and of some allied conditions, than truly a variety of that disease.

This work constitutes Vol. XI. of "Wood's Library" for 1886. It will undoubtedly be regarded as one of the most

valuable numbers. Diseases of the lungs and pleuræ are most prevalent affections, and none are more interesting in the study of their causes—etiology, pathology and treatment. We feel sure that every intelligent physician, who is afforded the opportunity, will take much pleasure in the study of this treatise and in frequently consulting it.

HANDBOOK OF PRACTICAL MEDICINES. By Dr. Hermann Eichhorst, Professor of Special Pathology and Therapeutics and Director of the University Medical Clinic in Zurich. Volume IV Diseases of the Blood and Nutrition and Infectious Diseases. Seventy-four Wood Engravings. 8vo. Pp. 407. Cloth. New York: William Wood & Co.; Cincinnati: Garfield.

This work has now reached its fourth volume. We noticed the third volume in the December issue of the *MEDICAL NEWS*—having reviewed the two preceding ones in previous numbers of the journal.

The first volume, it will be remembered, is devoted to *Diseases of the Circulatory and Respiratory Apparatus*; the second volume to *Diseases of Digestion, Urinary and Generative Organs*; the third volume to *Diseases of the Nerves, Muscles and Skin*; the fourth volume, the one before us, as is shown by the title-page, which we have copied, is devoted to *Diseases of the Blood and Nutrition and Infectious Diseases*.

Among the diseases of the blood treated are found leukæmia, Hodgkin's disease, melanæmia, chlorosis, the various forms of anemia, purpura simplex, rheumatica and hemorrhagica, scurvy, hæmophilia, etc. Among the infectious diseases are treated variola, rubeola, typhoid and typhus fevers, gonorrhœa, syphilis, etc. After these is considered tuberculosis at considerable length. The diseases of nutrition receive very considerable attention, and the discussion of them is highly interesting. Very much valuable information is given in regard to dietetics, which practitioners of medicine will find of great service.

In previous notices of the work we have described the general plan of the work, and, consequently, it is not necessary to mention it here. We will repeat, however, that students of medicine and practitioners of medicine will find the work well adapted to their wants, containing very full

and satisfactory descriptions of the various diseases and the latest and most approved methods of treatment.

The volume constitutes Volume XII. of Wood's Library of Standard Medical Authors for 1886.

Editorial.

ALL articles appearing in the original department of the MEDICAL NEWS—in the Microscopical Department, in Book Notices, and in the Editorial Department—without credit, have either been contributed to this journal by collaborators or written by the editor. Articles under the heading of Selections or Gleanings, of course, are not claimed as original, even though not credited. We, however, endeavor to give credit to all journals when we use any of their matter; but it sometimes happens that, after having written the name of the journal from which we have taken an article at the end of it, the compositor who sets it up omits the credit by some oversight. In this way, it seems, a couple of articles that appeared among Gleanings, on pages 50 and 51 of January issue, were not credited to the *St. Louis Medical and Surgical Journal*, as they should have been.

A CALL FOR ORGANIZATION.—During the present month the Circular, which we copy in full below, was sent around to members of the medical profession. The object of it is explained in it:

“*Dear Doctor*:—You are doubtless aware that there have long existed in our midst certain evils injuriously affecting the welfare of the profession and the community at large. Prominent among them are:

“Defective laws declaring who shall practice medicine, and non-enforcement of existing laws.

“The sanitary ordinances and organization of our Health Office are also susceptible of marked improvement in the interest of the public and profession.

“The presence in our midst of institutions issuing fraudulent diplomas. These institutions, advertising mostly in distant States, are doing incalculable injury to the reputation of Cincinnati as a center of medical education.

“The lack of all laws regulating the practice of obstetrics by midwives. Their incompetence is daily causing suffering

and death that might be prevented by intelligent attendance. Provisions for educating and licensing these midwives should be made at once.

"The continued immunity of men, known to all the active members of our profession as abortionists, calls for an earnest effort on our part to secure for them the punishment due their lives of crime.

"The unchecked career of a number of ignorant and vicious persons who are practicing medicine without any proper qualifications or legal right, is bringing to some extent the whole profession into disrepute. By their continued practice they are doing their patients and the community an injury that should be prevented.

"The daily publication in newspapers and otherwise of advertisements of medicines for producing abortion should and can be suppressed.

"The indifference or lack of active interest in these matters on the part of reputable practitioners have heretofore prevented a successful effort to remedy these evils. The time is ripe for an organization that shall actively undertake a task that belongs peculiarly to our profession, as factors in a community where the good of all should be the aim of each.

"All those to whom this call is sent, who sympathize with its object and are willing to join in such an organization, are invited to meet at Lancet Hall, No. 201 West Seventh Street, February 12, 1887, at 3 P. M.

"Those who are unable to be present at the appointed time, but who still wish to join in the work, should send their names and addresses to Dr. J. A. Thompson, southwest corner Clark and John Streets.

"This proposed organization has been discussed and approved by the Cincinnati Medical Society, Academy of Medicine, Walnut Hills Medical Society and Obstetrical Society of Cincinnati."

On the day and at the hour mentioned, a large number of physicians met at Lancet Hall and organized themselves into a County Society, for the purpose of correcting the evils mentioned in the Circular, and that such measures may be adopted as seem best to advance the interests of the profession and promote the welfare of the community.

A report of the proceedings of the meeting appeared on

the following morning in the *Commercial Gazette*, which we copy verbatim:

"In response to a call issued with the approval of the Cincinnati Medical Society, Academy of Medicine, Walnut Hills Medical Society and the Obstetrical Society of Cincinnati, there was a large attendance of local physicians at Lancet Hall, No. 207 West Seventh Street, yesterday afternoon. There were fifty-one doctors present when the meeting was called to order by Dr. J. A. Thompson, who stated that the call had been made for the purpose of effecting an organization having for its object the welfare of the medical profession, and through them the community at large.

"Prominent among the evils were the defective laws declaring who shall practice medicine, and the non-enforcement of existing laws; sanitary ordinances, which need marked improvement; the prevalence of institutions issuing fraudulent diplomas; the lack of laws regulating the practice of obstetrics by midwives; the continued immunity of persons known to the active members of the profession as abortionists; the unchecked career of ignorant or vicious persons who are practicing medicine, and an indifference or lack of active interest on the part of reputable practitioners.

"Dr. Comegys was elected Chairman, and Dr. J. A. Thompson was chosen Secretary. On motion, a Committee on Permanent Organization, consisting of Drs. Murphy, Davis and Palmer, was appointed by the Chair. During their deliberation the meeting was addressed by Dr. Thompson, Dr. Thacker, Dr. Illoyay and others on the benefit that might accrue from an organization such as was contemplated.

"The committee reported that the organization should be known as the Hamilton County Medical Society, and should be composed of regular members of the profession.

"The following officers were recommended:

"President—Dr. C. G. Comegys.

"First Vice-President—Dr. J. C. Culbertson.

"Second Vice-President—Dr. A. C. Kemper.

"Treasurer—Dr. W. H. Wilder.

"Recording Secretary—Dr. J. A. Thompson.

"Corresponding Secretary—Dr. J. D. Jones.

"The report of the committee was received, and the above officers were declared elected.

"The following committees were then appointed:

"On Existing Legislation—Drs. Murphy, Carey and Kemper.

"On Constitution and By-laws—Drs. Gustav Zinke, Langdon and Isham.

"The meeting then adjourned, subject to the call of the President of the new organization."

THIRTEENTH ANNUAL REPORT OF THE SUPERINTENDENT OF THE CINCINNATI SANITARIUM.—This report is quite interesting for a number of considerations. While the statistics contained in it have some interest, the discussion of a number of subjects is quite interesting.

The Sanitarium evidently continues in a prosperous condition under the management of O. E. Everts, M. D., the Superintendent. During the year 146 patients were admitted—104 men and 42 women. At the beginning of the year there were 57 patients remaining from the previous year, which would make the total number treated during the year 203. Of the whole number, 93 (72 men and 21 women) were discharged as cured; leaving 54 patients still under treatment.

The Sanitarium is located on the suburban height north of Cincinnati, known as College Hill. The location is 500 feet above the level of the Ohio River—the scenery being exceedingly beautiful and picturesque. The grounds contain twenty-five acres—furnishing elegant and shaded walks among a great variety of fruit and ornamental trees. There is no institution of the kind in this country more healthily and favorably situated, and that contains superior advantages for the treatment of those who have been unfortunate.

The aim of the Cincinnati Sanitarium "is to serve a certain class of insane, and otherwise nervously disturbed, patients who require seclusion and more or less restraint or personal control, together with the most enlightened medical treatment known to the times, who are able financially to command such service."

As regards Dr. Wm. H. Hammond's declaration, that there is no such habit as the cocaine habit, because he failed to produce it in himself after using the drug hypodermically for a number of days, injecting as much as eighteen grains at a dose, Dr. Everts very correctly says, that the testimony is both bad and insufficient. "Bad, because reported by himself—the testimony of an intoxicated person respecting his experiences while intoxicated being proverbially untrustworthy; and insufficient, because the experiment was not

continued long enough. Many instances might be cited of total failure to establish the morphine habit or habitual drunkenness by the use of six or seven doses of morphine, or six or seven drinks of whisky, one a day for six or seven days in succession. It is often the case that such experiences end with disgust for the drugs used, instead of a desire to continue their use. There is also much and accumulating testimony, by competent observers, to the fact of such a habit as is alleged respecting cocaine which a single opinion will not invalidate, however worthy of consideration."

Dr. Everts treats, as he states, the opium or morphine habit by a gradual reduction of the daily dose administered by substituting smaller doses either of the original intoxicant, or its equivalent, in a more eligible form, and such concomitant medication, nutrition and hygienic regulations as may tend to lessen shock, and prevent the recurrence of such voluminous, yet unnamable, distresses as are incidental to cerebro-spinal anemias, alternating the congestions of overstimulation habitually maintained.

There are admitted into the Sanitarium such inebriates as voluntarily seek assistance in an effort to restore themselves to health and society. Such patients are not, however, associated with the insane, unless requiring temporary restraint, but are accommodated in cottages near by.

The institution is undoubtedly doing a good work. It has the confidence of all intelligent persons who have knowledge of it. Dr. Everts holds the highest rank as an alienist.

APHORISMS.—The late Dr. Frank H. Hamilton, we have understood, formulated a number of Health Aphorisms, among which we notice the following: "Milk drawn from a woman who sits indoors, and drinks whisky and beer, is certainly as unwholesome as milk from a distillery-fed cow." We think that there can not be any doubt as to the correctness of this aphorism. From such milk neither health of body nor of mind can be obtained. While the body will be lacking in vigor, the mind, both as regards the intellectual and moral functions, will be feeble—without strength and energy. How can a child, fed upon a pabulum that has largely been made out of whisky and beer, exhibit, when it has grown up, a high moral character—any delicate sense of right and wrong? The moral emotions, like the other departments of the mind, depend for their strength and

energy and acuteness upon the well-organized tissues of the brain. If the brain, during its development, obtains nutrition from healthy food, the prospects will be favorable, with proper training, of the individual exhibiting, in his adult life, not only fair intellectual endowments, but also a correct moral character. But if, on the contrary, the pabulum has been of the worst character—mere distillery slops—can it be expected otherwise than that the vilest passions will be in the ascendency, and the distinction between right and wrong little felt?

Another aphorism of Dr. Hamilton is worthy of attention, namely: "Mold and decaying vegetables in a cellar weave shrouds for the upper chambers." We have met with many beautiful mansions in the country, with sumptuous furniture, and such appurtenances as are used where there are elegance and refinement, the cellars of which were filled with the fruits and vegetables of the farms. On entering these cellars the smell of mold could be very perceptibly distinguished. In such houses typhoid and other malignant fevers carry off members of the family, and it is often wondered what could have produced them. The situation, it is reasoned, is healthy, the *air pure*, the water good, and the food the best. While thus searching for the causes of the deadly fever, it probably never occurs to any, not even sometimes to the physician in attendance, that poisonous gases, having their origin in vegetable decay in the cellar, have found their way through the floors and pervaded the upper room. Living in a house, the cellar of which is filled with fruits and vegetables, will surely be followed by disease and death.

Persons frequently go from home "for a change of air," and the departure is oftentimes followed by benefit to their health. But Dr. Hamilton, in his aphorisms, says that "A change of air is less valuable than a change of scene. The air is changed every time the direction of the wind is changed." We agree with Dr. Hamilton. The air about us is being changed all the time. It is not necessary to go away to experience a change. Change of scene plays a far more important part in restoration to health, when one leaves home for the benefit of his health, than it receives credit. A warmer and more equable temperature, a dryer climate, etc., we know frequently are important factors in bestowing benefit; but new scenes, in the majority of instances, do more than any other agent in acting favorably up-

on the health when one goes abroad. When an invalid visits some so-called health resort, he beholds new scenery, sees new faces, and is thrown into a different kind of society from that he has been accustomed to. In associating with strangers he hears novel views expressed and has awakened in himself new trains of thought. Probably the climate where he is stopping may be more favorable, or at least he may think so, but really, the most favorable circumstance, to which he is the greatest indebted for his improvement, consists in having his mind taken from the contemplation of himself and his ailments, and given more cheerful subjects to view. We have often heard that a person will generally become the victim of a disease, which, from any cause, he has become apprehensive he will contract, even though he may not have a hereditary taint. Surely, there is no greater obstacle to improvement of health than morbid views in regard to the ailments which a person experiences; and there is nothing that is so effectual in diverting the mind from dwelling upon one's bad feelings than change of scene. New surroundings (environments, as they are termed nowadays) excite the curiosity, which is always on the *qui vive* when anything new is presented, awaken pleasurable feelings, and cause one to entirely forget themselves. Let a person stay at home all the time, never seeing any other than the few faces of the members of his family and those of a few friends, hearing from week to week the same subjects discussed, and never experiencing anything to excite any new train of thought, if unfortunately he should be affected with any chronic ailment, from very necessity his disorder will be the chief subject of his thoughts, and he will ponder upon it day after day. His pains and bad feelings generally will become exaggerated in imagination, and to them will be added morbid sensations innumerable. In short, the conditions will all be favorable for the uninterrupted progress of the disease. So great is the influence of the mind upon the body, that a morbid contemplation of the latter by the former will not only tend to continue any disease that has become developed by an extrinsic cause, but is really able to originate a disease *de novo*.

We will copy two more aphorisms by Dr. Hamilton without comment:

"The lives of most men are in their own hands, and, as a rule, the just verdict after death would be *felo de se*."

“Dirt, debauchery, disease and death, are successive links in the same chain.”

MORTALITY OF CHILDREN. —The Health Officer of Cincinnati, in his report of the number of deaths that occurred in Cincinnati during January of this year, reports the mortality rate for the month, of all ages, as 573. Of these 260 *were children of five years old and under*. Of children two years old and under the number of deaths was 177—double the number occurring the first two years that took place the following three years—83. It is thus shown that the prospects of life are much greater after the first two years.

The mortality statistics of Cincinnati for January, 1887, accord with statistics generally. All reports show that of human beings born into the world, one-half die during the first five years of life—one-third during the first two years. This is an awful “massacre of infants,” and great has been the outcry against it; but it continues right along, from year to year, all the same.

Among the poorer and ignorant classes many infants die in consequence of neglect, exposure, living in badly ventilated rooms, improper feeding, etc. Among the “better classes” the infant mortality is often increased, no doubt, by artificial feeding, in order that the mothers may be released from the inconveniences of nursing, so that they may take part in society, and by ignorance generally in management.

The great mortality that exists among infants at the present time demands attention, and the causes of it should be investigated. The organization of an infant, we know, is most delicate—the nervous system which controls all of the various organs and constitutes the motive power of vital manifestations being most delicate—yet we can not see why, in this age of scientific progress, a greater number than fifty per cent. of those born can not be brought past five years of age. Providence may remove some on account of the sins of their parents. Yet we are of the opinion that the mortality of the greater number is due to bad sanitary regulations. Now in what these sanitary errors consist it behooves the medical profession to find out, and endeavor to have them corrected.

The *slaughter of infant life* that is constantly going on is a disgrace to the civilization of the age. We do not believe

that it is greater among savage tribes than it is among enlightened nations. We are willing to admit that culture increases the causes of disease, but this circumstance should be more than met by the increased ability to avoid them and cope with them by the progress of science. If the average of life has become shortened by our culture and refinement—if culture and refinement have increased the causes of disease without having furnished any means for escaping them—it has been of doubtful advantage to the human race.

In glancing over the report of the Health Officer, we notice that with 25 diphtheria is given as the cause of death; 38 measles; 74 phthisis pulmonalis. In our experience we have never known a fatal result to be caused directly by measles. When death has occurred, it has been some time after all symptoms of measles had disappeared—following upon some one of the sequelæ. We have no doubt but that the malignancy of the poison may sometimes be sufficient to destroy life, but we think it is seldom. The lungs, however, being left weak, and the functions of some of the other organs not infrequently deranged, pneumonia or other organic disease is not infrequently excited “by taking cold” or other cause, and the patient dies from it. In such instances, of course, the measles are the remote cause of death.

There have been many cases of diphtheria in Cincinnati during the present winter, although we do not think that the prevalence of disease has been so great as to entitle it to be called an epidemic. The most of the cases have been of a mild character.

DIETETICS.—Wells, Richardson & Co., of Burlington, Vermont, have kindly sent us a number of publications that are devoted to dietetics. This is a branch of medicine which, heretofore, has been much neglected by physicians; but we are happy to say that medical men, at the present time, are giving it much more attention than formerly. But even now dietetics do not receive the consideration commensurate with their importance; for it is demonstrated that there are a number of affections in which the whole treatment, in fact, consists in regulating the patient's diet, both as respects the kind and quality of the food and its constituents, whether or not containing grape sugar, starch, diastase, gluten, hydro-carbonates, etc. No one would now treat dyspepsia, diabetes, Bright's disease, etc., without giving especial attention to diet.

Says Dr. Fothergill: "The day of dietetics has arrived; modern advances in our knowledge of the physiology of digestion have been accompanied by a like progress in the preparation of food. The value of predigested carbon-hydrates in acute diseases and malassimilation among adults, as well as children, is now being gradually realized."

Again Dr. Fothergill says: "The body temperature is kept up by the combustion of grape sugar. Grape sugar is supplied from carbo-hydrates, either the insoluble starch or the soluble sugar. Starch forms a great portion of our food, and is converted into grape sugar within the body. When the system is unequal to the digestion of starch, as in feeble digestion or conditions of acute disease, then predigested starch must be furnished to the organism; otherwise the system will perish of exhaustion, just as a fire dies out when its fuel is consumed. . . . When lactated food is placed in water hot enough to be sipped, a rapid transformation of the starch remaining in it (by the diastase it contains) goes on; and a nutritive fluid is the result, which requires but a minimum of the digestive act."

Two of the publications which we have received from Messrs. Wells, Richardson & Co., of Burlington, Vermont, are the "Physician's Almanac and Memoranda" and "The Dietetic Annual, 1887." These publications contain a very large amount of valuable information in regard to dietetics, and are worthy of attentive perusal by every intelligent physician—containing much that is only to be found scattered through many works. We advise our readers to inclose two or three stamps, and request that they be sent them.

A NEW REMEDY.—We learn of a new remedy in the *Phil. Med. News*, called *Antifebrin*. It is a neutral body prepared by heating aniline with acetic acid, and when purified by successive crystallizations, it forms a white, odorless powder with a sharp but not unpleasant taste.

Cahn and Hepp, of Germany, introduced the drug. The *Berliner Klin. Wochenschrift*, of this year, gives a full account of their observations, based upon its use in sixty cases. Its effects in lowering the temperature are described as most remarkable. In the course of an hour after its administration its action becomes manifest, and, as a rule, there is a reduction of temperature of from three to five degrees in as many hours. Sometimes the fall is said to be more rapid, and within two hours there may be a drop of

five or six degrees. Copious sweating almost invariably follows; but chills have never been observed. The duration of the action is variable, but in acute fevers, after four or five hours, the temperature gradually rises again. The administration of smaller doses may check this tendency. The pulse is also reduced in frequency.

It is mentioned in high terms as a remedy in typhoid fever and in acute rheumatism. In no case in typhoid was there the depression which is sometimes seen after the administration of antipyrin or thallin. The authors, however, do not claim for it any specific action in that affection.

The editors of the *Phil. Med. News* confirm the observations of Cahn and Hepp on the use of antifebrin from their experience with it. We quote: "We have found that it acts promptly in comparatively small doses, is easy to take, and is free from the unpleasant after-effects of some other antipyretics. It is a cheap drug, costing not half the price of antipyrin, and seems likely to prove a valuable addition to the pharmacopeias."

It is given in doses of from five to fifteen grains. Eight grains is the usual dose, and it may be administered in warm water, or in a little alcohol and water, or in capsule. In larger doses it is not poisonous, and from sixty to ninety grains have been taken in the day without any ill effects. Fever patients rarely require more than thirty grains a day in divided doses. It is insoluble in cold water, but is soluble in warm water or in alcoholic fluids.

AN OVERDOSE OF COCAINE.—In the *Australian Medical Gazette*, Dr. Ramsden reports the effects of an overdose of cocaine. A patient, in whose case the Doctor had before injected a ten per cent. solution of cocaine for the relief of a tooth with success for a time, brought to him afterward a twenty per cent. solution without informing him that the strength had been doubled. Dr. Ramsden injected four minims of this solution. Within five minutes he became restless and began to vomit. He then began to feel a sensation of pins and needles in the left hand and arm, which rapidly extended to the right side. This was speedily followed by contraction and rigidity of the fingers, arms and legs. There was also a tendency to opisthotonos. His pulse became extremely rapid and feeble, his face livid, and the muscles of his mouth and cheeks strongly contracted. His respirations were short and convulsive, his feet and

hands became cold, and a profuse perspiration broke out on his head and face.

The Doctor gave the patient at first half a tumbler of brandy, which he followed at short intervals with drachm doses of aromatic spirits of ammonia. He applied strong mustard over the cardiac region, and employed active friction of the upper and lower extremities. Also inhalations of a few drops at a time of chloroform was used. In the course of an hour the patient began to get better, and after due time recovered.

This sensation of pricking of pins and needles seems to be somewhat characteristic of the effects of cocaine. We once knew a person who, having become addicted to the use of cocaine, frequently complained that he felt needles piercing his skin. At times he would be made frantic by the sensation.

The cocaine habit has not yet been written up, though, at times, there are allusions to it in articles in medical journals. The description of it will be highly interesting when written by one competent to write it.

MISTAKES IN IDENTITY.—Some queer mistakes have been made in identifying persons. Tidy, in his *Medical Jurisprudence*, reports a case in which a mangled body was identified by a woman and her children as that of the husband and father. Within an hour after its interment the real father entered, and gave a satisfactory account of his absence. Ogstan (*Medical Jurisprudence*) relates the case of a medical student who resurrected the body of a countryman, and was arrested with it in his possession. The wife and sons of a missing weaver identified it as the husband and father. The medical student told his story, and the grave was examined and found empty. The people whose churchyard had been violated identified the body, but so did the wife and sons aforesaid. Finally, the weaver made his appearance, and only then were his wife and sons convinced of their mistake. Dr. Kinlock reports a case in which the body of an old man with a left ear and finger missing, a mutilation of long standing, was found. The daughters and friends of an old man who was missing fully identified the body. On their return from burying the supposed father and friend, they were astounded to find their father had returned, and that they had buried a stranger. Such instances of mistaken identity are so frequent that they prove that great care is necessary in order to make identification sure.

EPIDEMIC OF BOILS.—Hergott, in the *London Medical Record*, records an epidemic of boils in the lying-in hospital at Nancy, which could apparently be traced to an infected bed-pan. A woman was delivered in the hospital, where antiseptic precautions are rigorously enforced, on April 22. On the 24th the back and buttocks were found to be covered with a copious eruption of small boils, which disappeared under the usual treatment in the course of a day or two. On the 28th another woman was confined in the same ward, and on the following day a crop of boils showed themselves on the upper and inner aspects of the thighs and over the gluteal region. Washed with boracic acid lotion, these subsided. On May 18th the same phenomenon was witnessed in the case of a young woman who was delivered on May 6th, successfully treated in the same way, and two other cases occurred, the site of the eruption being the same in every case, on the 15th and 16th of the same month. Dr. Hergott, after investigating the circumstances, arrived at the conclusion that the boils in the cases after the first were attributable to infection conveyed by an imperfectly cleansed bed-pan. This utensil being carefully washed with a solution of corrosive sublimate, no further cases occurred. The possibility of conveyance of infection by such means is evident, and points clearly to the necessity for the greatest care and cleanliness.

JAMES VICK, of Rochester, has probably done more for the cultivation of a pure æsthetic taste than any man in America; for through him the love for that which is most beautiful in Nature—flowers—has been made active in many a breast where it otherwise might have lain dormant during life. His *Floral Guide* is a work of beauty in itself; and it contains priceless information concerning the flowers and shrubs, without which the most elegant residence is unfit to be a home for the family.—*Independent Practitioner*.

OBITUARY.—Dr. A. Bettman, of Walnut Hills, Cincinnati, undoubtedly has the heartfelt sympathy of the members of the medical profession and a wide circle of friends, in his recent great bereavement—the decease of his wife, Mrs. Sarah Bettman, in her sixty-ninth year. The loss of a companion of many years, who from her youth to old age has been the closest confidant, and has shared the joys and disappointments of life, is, we are sure, an affliction which only those who have experienced it can understand.

THE CINCINNATI MEDICAL NEWS.

VOL. XX. NO. 231. }
Old Series.

MARCH, 1887.

{ VOL. XVI. NO. 3.
New Series.

Original Contributions.

Wounds of the Brain.

BY J. B. CRAWFORD, M. D.

Read before the Luzerne Co. Medical Society at Wilkesbarre, Pa.

THERE are two classes of diseases, and likewise of injuries, the treatment of which has not yet been very generally agreed upon, and which seems likely to long remain unsettled. I refer to those widely differing conditions in which the disease or the injury is so slight that the unaided efforts of nature usually suffice to effect a restoration to health, or a complete repair of the injury; and to those malignant diseases and grave injuries in which the best directed therapeutic or surgical skill appears to exert but little power in averting a fatal termination. Whatever is done for the one class of cases *seems* to succeed; and consequently an endless variety of supposed remedies and of surgical procedures, each asserting superiority over its rivals, claims our adoption; while, on the other hand, whatever means we apply or whatever measures we adopt, are usually doomed to failure, and acquire only disrepute.

The subject of our discussion to-day—wounds of the brain—is mainly included in the latter class. They are always of grave import; yet while none are so trivial as to be destitute of danger, or to be disregarded in treatment, few, which are not immediately fatal, are so severe as to preclude the possibility of recovery. It becomes important, therefore, for the surgeon to determine how to direct

his efforts, in treating this class of injuries, so as to secure the largest measure of that limited success that is attainable.

That great central mass of nervous matter called the brain or encephalon, is confined within the bony cavity of the cranium, which it closely fills. It is surrounded by a strong fibrous envelope which closely invests its exterior and applies itself to all the intricacies of its conformation. It consists, in the main, of a central mass of white medullary matter surrounded by an envelope of gray or cortical substance. Originating in the peripheral or gray matter, innumerable nerve fibres connect the corresponding portions of the hemispheres, associate the different organs, and converge from every portion of the periphery of the cerebrum to penetrate the ganglia at its base, and pass into its closely associated organ, the spinal cord. The blood supply of this organ is derived from the internal carotid and vertebral arteries. These several vessels, uniting, form an important vascular plexus at the cerebral base, and send their diminishing branches toward its periphery. It will thus be seen that the more highly vitalized parts of this organ are located in its central basilar portions; that the nerve-fibres, upon the integrity of which the continued vitality and functional activity of all other portions of the system depend, are concentrated in this portion of the brain; and that the vascular supply of the entire organ is concentrated in the same locality. If we trace either the nerve-fibres or the arteries from this central portion, we find them diminishing in size and in relative proportion to their surrounding tissues, as they approach the external portions of the hemispheres. These anatomical characters of the brain may help us to understand why it is that so widely different results follow apparently similar injuries of the brain; and why it is that recovery will at one time follow extensive destruction of the cerebral mass, while the slightest injury of another portion is instantaneously fatal.

It may be well, too, for purposes of diagnosis, to note some physiological facts in relation to this organ. The hemispheres are so slightly associated with the functions of physical life, that extensive destruction or removal of a considerable portion of their substance may take place without necessitating a fatal result. They seem to be especially connected with the manifestation of conscious intelligence; and while their complete integrity is essential to the highest manifestation of intellectual power, extensive

portions of their substance may suffer morbid alteration, mechanical injury, or destruction of substance without necessitating a fatal result, or an entire abolition of mental power. They combine the mechanism of conscious sensations and voluntary movements. The recent improvements in our knowledge of cerebral physiology relate chiefly to the localization of these powers. They demonstrate that certain portions of the cerebral cortex are connected with the phenomena of motion, others with sensation, while still others are associated with nervous phenomena of different kinds. "The cerebral hemispheres," says Dalton, "do not act indiscriminately, as a whole; but the convolutions of particular regions have a structure and properties differing from those elsewhere." The knowledge thus far gained relates chiefly to three different points, to wit: centers of sensation, centers of motion and centers of language. But it is chiefly with the centers of motion that the diagnosis of cerebral injuries is mainly concerned. These portions of the cerebral substances lie around the fissure of Rolando, and embrace the anterior and posterior central convolutions. This portion of the human brain, as well as the corresponding portion of the brain of animals, in which like phenomena have been observed, is characterized by the presence of giant pyramidal cells, which are only found in those portions of the cerebral substance, and constitute a structure that is found only within the limits of the motor area. It has been further ascertained that the power of voluntary motion of the face and tongue originate in the lower third of this region; that motions of the arm have their origin in the middle third, while motions of the lower extremity originate in the upper third of this motor area. Injuries of other portions of the brain may often be inferred by certain nervous phenomena; but the localization of most other functions of the cerebral hemispheres has not yet been ascertained with such accuracy as to make it a reliable and infallible basis of diagnostic opinion or of surgical procedure.

The location of the human brain is such as to make it especially liable to a great number and variety of traumatic injuries. Forming the highest portion of an erect body, exceedingly liable to be overturned, it usually receives from such an accident the severest shock that is borne by any portion of the system. It is the objective point of fists, bludgeons and missiles in all personal encounters; and it

seems to be the recipient of an undue proportion of the injuries resulting from accidental causes. In war it encounters a larger proportion of destructive missiles than come in contact with any other portion of the body of corresponding size. The delicacy of the structure of this organ, and the want of firmness or tenacity of its tissues, render it liable to destructive lesions from a degree of violence that would do little harm to other portions of the system. A blow from the fist upon any part of the cranium, leaving, perhaps, no external mark of violence, may cause a fatal lesion of some portion of the brain; or the resulting concussion may, without appreciable lesion, so shock and paralyze the nervous centers as to endanger, or perhaps to destroy life. Or a hæmorrhage within the cranium may be produced by similar apparently slight causes, and by its pressure involve an equally dangerous result.

But it is the more violent forms of injury of the brain and its associated organs that I propose at present to consider. These consist, for the greater part, of fractures of the skull and consequent and associated injuries of the cerebral mass and its enveloping membranes. Fractures of the cranial bones, unless associated with lesion of the brain, do not come within the purview of our present discussion. While fractures of the skull may, and often do, occur without an involvement of the brain, the latter organ is often injured by displaced fragments of the cranial bones, pressing upon the surrounding membranes, or penetrating its substance. Sharp or pointed instruments sometimes penetrate it more or less deeply. Missiles, like bullets, fragments of shells, arrows, fragments of iron impelled by an exploding boiler, etc., produce an endless variety of injuries of this organ. These may penetrate its substance to any depth, may pass entirely through, or lodge within its substance, and may carry with them fragments of bone, portions of clothing or other material, to be deposited along the line which they traverse through this organ.

When the recipient of one of these injuries survives long enough to allow a surgeon to be called to his assistance, the doctor usually feels a greater degree of embarrassment and uncertainty in regard to the measures to be adopted for the promotion of his patient's recovery, as well as to the probable result of either the injury or its treatment, than he is accustomed to experience in the management of any other

class of injuries. His patient is probably unconscious, and no interrogation of him can elicit any information that can serve to guide his treatment. A slight external wound is, perhaps, the only visible injury; yet it is evident that beneath the cranium, hidden from view, inaccessible to the touch, and secluded from all his powers of observation, there exists a serious lesion of the brain. In regard to its precise nature, its exact location or extent, he feels altogether uncertain; and he is likely to feel a corresponding uncertainty as to the most appropriate and efficient measures to be adopted. If he turns to the standard authors in surgical literature for guidance, he finds but scanty aid—for the precepts there laid down for his guidance in such cases, are diverse and contradictory. If he relies upon his own experience and judgment, he is likely to find that what he has seen in other apparently similar cases is by no means repeated in the present one. His greatest embarrassment comes from the impossibility of knowing with precision the exact nature or extent of the injury. If he attempts to explore the wounded organ and to ascertain the location and extent of the injury, he is not only liable but likely to complicate the existing injury. If he pursues a "*masterly inactivity*," his patient may die for the want of some simple procedure, like the removal of a spiculum of bone or other material that has been carried into the substance of the brain, and which is easily accessible. What then can he do?—Or what should he do? How shall he decide the uncertain problem and execute the serious duty that confronts him? It would seem that the course of duty must lie somewhere between officious interference on the one hand and a blind and passive trust in the recuperative powers of nature on the other. There are, undoubtedly, cases in which the most radical and heroic procedures are not only justifiable but imperative. There are others in which any active interference can only do positive harm, and greatly diminish any existing chances of recovery. A wise discretion, therefore, will incline him to set aside all rigid rules of procedure; to discard so-called "*authorities*," and to judge for himself what are the indications for treatment in the particular case that he has in hand. He should consider that there are widely differing degrees of susceptibility in different portions of the brain—that the anterior and middle lobes of the brain are more tolerant of traumatic lesion than other portions of the organ, and that while they

are more liable to suffer from the effects of severe concussion, and in their basilar parts are especially liable to laceration from the latter cause—they more frequently recover from destructive injuries, like penetration, laceration, and loss of substance, than do any other portions of the cerebral mass. He should remember, too, that all lesions of the brain become more serious as they approach the central and basilar portions, and that the difficulties and dangers of surgical interference in these localities are correspondingly enhanced. He should in no case act with undue haste. The case may at first seem much worse than it really is. The brain may be so shocked, aside from any actual lesions, that its functions are, for the time, almost suspended—just as a bar of magnetic iron loses its magnetic power by receiving a violent blow. He should, therefore, unless some urgent necessity for immediate interference exists—such as a dangerous compression or irritation from a depressed or detached fragment of skull or other substance, or an exhausting hæmorrhage—give sufficient time for the system to rally, so far as it may, from the more transient effects of the injury, before proceeding to any operative measures.

In whatever he undertakes to do, he should be guided by the conditions and symptoms presented. There may be slight external marks of injury; and yet there may be an extensive fracture of the inner table of the skull, producing compression, laceration or hæmorrhage of the brain. If the signs of these conditions, or any of them, are present and persistent, an exploration of the injured part and elevation of the depressed bone—and if need be—the removal of a superficial clot and measures for the arrest of hæmorrhage should be undertaken. This may involve the use of the trephine, and it should be boldly resorted to when the indications for its use are apparent. This class of cases is usually very perplexing to the surgeon; for the slight external injury serves as but a doubtful guide in locating the serious injury which he is seeking to relieve. The localization of cerebral functions, as ascertained by recent physiological investigations, will, in some instances, enable him to determine the seat of the injury. In other cases there may be a more or less extensive external wound, with manifest depression; and yet the case may present no symptoms that would justify the measures necessary for an elevation of the bone. These cases should be sedulously watched. Symptoms *may be developed* that demand an application of the

trephine. Whatever symptoms appear, or whatever complications arise, should be met and combated, as they become apparent, by an application of the general principles of surgery—otherwise they should be skillfully let alone. In still other cases, an extensively shattered skull, and a like extensively wounded brain, may be presented. The patient may be conscious or comatose, sensitive, anæsthetic or paralytic, according to the location and extent of the injury. A prompt removal of depressed and displaced fragments of bone and other foreign or vulnerating materials, when they can be readily found will, in such cases, be the most judicious course. If the patient survives the direct effects of one of these injuries, there are various complications that may arise in its subsequent history. Inflammation of the brain and of its membranes, with their resulting sequences, are to be, if possible, averted; or met and combated by prompt and vigorous measures if they appear. The patient should, in all cases, be kept quiet, and, if possible, in a darkened room. The head should be elevated and kept cool. The cerebral circulation should be moderated by bromides, and general antiphlogistic measures adopted. If symptoms of cerebral or meningeal inflammation arise, no time should be lost, and no reasonable effort spared, in combating them. The head should be shaved and ice applied to the scalp. Active purgation, counter-irritants to the extremities and the local abstraction of blood should be resorted to; even the “lost art” of bleeding might here well be revived, and again put into requisition. Should bromides prove inefficient in controlling nervous excitement, opium should be substituted for or combined with it. Every measure that can tend to diminish cephalic irritation should be promptly and energetically employed. As the inflammatory process, unless limited or controlled, must certainly be fatal, its appearance should always be met by early, prompt and energetic treatment. Should the patient survive the acute inflammatory stage, there still remain the dangers of diffused suppuration, of abscess, of paralysis, of fungus cerebri; with the more remote contingencies of cerebral softening and epilepsy. If paralysis appears early in the case, it usually indicates destruction of some cerebral nerves, or of that portion of the brain in which they originate. Unless it is due to pressure from a depressed portion of bone, it is in that case usually permanent. If it comes on later it is probably due to arrest of functions—as from

clot or abscess, and the prospect of ultimate improvement is somewhat better. If an abscess forms, and can be located with sufficient precision, its contents should be evacuated. If the condition known as "fungus cerebri" appear, gentle compression, astringents locally applied and excision of the protruding mass are to be resorted to.

As the formation of abscess is one of the frequent sequences of cerebral or meningeal inflammation, especially that resulting from traumatic causes, it is often as difficult as it is important to decide upon its location when the fact of its *existence* has been determined. If it is known to be superficial—if it lies immediately beneath the cranial bones or immediately beneath the dura mater—*i. e.*, if it has resulted from inflammation of the cranial bones or of the dura mater or arachnoid, its evacuation can readily be accomplished by an application of the trephine. In such cases the seat of the original injury will often be an efficient guide in determining the location of the abscess. If it be located in the superficial substance of the brain, its situation may often be determined, and its evacuation effected, in a similar manner. Of course the trocar or the aspirating needle will be required in addition. It may be important to determine in advance of an operation whether an existing abscess is deep or superficial—in other words, whether it is the result of cerebral or meningeal inflammation. There are no means presented by the *symptoms* resulting from these conditions, which have enabled us to distinguish inflammation of the brain from that of its enveloping membranes. It has been suggested by Dr. Agnew—and the correctness of his suggestion has been frequently confirmed by observation—that this matter might be determined by observing the comparative force in the temporal and carotid arteries. The temporal, occipital, frontal and meningeal branches of the internal maxillary arteries have a free inosculation in the diploe of the cranial bones, making a free vascular communication between the arachnoid and dura mater and the cranial bones and scalp; while the brain and pia mater receive their blood supply from the internal carotid and vertebral arteries. It follows, therefore, that in meningeal inflammation, when the arachnoid, the dura mater and their exterior structures are alone inflamed, the temporal arteries will be observed to beat with peculiar force; when the pia mater and the brain are alone involved in the inflammatory process, the carotid arteries display a similar energy. When the brain and all

its membranes are alike implicated, both sets of vessels are similarly affected.

The rupture of a vessel within the cranial walls often gives rise to a dangerous compression of the brain, with resulting paralysis and coma. Its extent is frequently such that its location can not be decided by the symptoms which it produces. Like other injuries of the brain, the resulting effects are observed on the opposite side of the body. This, with the marks of injury which may have been left by the blow which produced it, often give the only clew to its location. As the only relief for such an accident consists in the removal of the compressing clot, if it is superficial, and if its site can be determined with reasonable probability, the trephine should be applied and the clot removed. If symptoms of compression have been developed immediately after the reception of the injury, it is to be supposed that the point of hæmorrhage is where the middle meningeal artery enters the cranial cavity, or at the anterior inferior angle of the temporal bone. If the trephine be applied to this point the compressing clot may sometimes be found and removed—if not, the meningeal artery may be tied and further hæmorrhage arrested. When failing to find the offending clot at this point, if the symptoms are sufficiently urgent, a similar exploration may be made along the course of the inferior meningeal artery. Extravasation in the cavity of the arachnoid has occasionally been relieved by a similar procedure. When it lies beneath the pia mater or in the deeper tissues of the brain, I am unacquainted with any efficient measures for its relief.

Penetrating and perforating wounds of the brain are usually made by missiles projected by firearms. These frequently carry into and lodge within the cerebral substance some foreign materials, like felt, hair, fragments of the cranial bones, etc. The missiles themselves may either lodge within the cranial cavity or make their exit by a second perforation of the skull. A very large proportion of these injuries are speedily fatal. A less number survive for a limited period; and a still smaller proportion either partially or completely recover.

If the wound be a perforating one it will usually be found that the missile has traversed a direct course through the brain between the points of its entrance and its exit in the cranial walls. It will ordinarily be easy and safe to explore its course through the encephalon, to discover and to re-

move any foreign or injurious materials that may have lodged along its course. The inner table of the skull will always be found more extensively fractured at the point of entrance than the outer one; and more or less completely detached pieces of the inner table will usually be found impinging upon the membranes, perforating their walls or penetrating more or less deeply the cerebral tissues. These should, if practicable, be removed; and if the small size of the external opening interferes with the necessary procedures, it should be enlarged by the trephine. It seems needless to say that these measures should be conducted with the utmost delicacy and care, and that the greatest caution should be observed in guarding against the possibility of inflicting any additional wound or injury of the brain or its membranes.

In penetrating wounds of the brain, when the missile has lodged within the cranial mass, the position of the attending surgeon is often a difficult and embarrassing one. The patient has survived the immediate effects of the injury, but a bullet or other projectile has penetrated the brain and lodged he knows not where. He is uncertain of the course it has taken—of how deeply it has penetrated, or what damage it has inflicted along the track which it has traversed; or what irritating or vulnerating materials it may have lodged along its course. He can do little toward rescuing his patient from his perilous condition until he has gained accurate information upon these doubtful points. But the procedures necessary to elicit this information may, unless carefully executed, be fraught with peril, both to his patient and to himself. If he makes no attempt to discover and to remove the missile, and death ensues, he is likely to be charged with negligence and want of skill, and made to suffer in reputation and in purse. If he explores the wounded brain and seeks to discover and to remove the offending materials, his best conceived efforts in this direction may totally fail, and ensuing death be attributed to his most laudable efforts to avert it. The old travesty upon the doctrine of predestination—

“You’ll be damned if you do,
You’ll be damned if you don’t,”

seems especially applicable to him; and if, still more unfortunately, the case which he has in hand should be one of attempted or accomplished homicide, he is liable to be

assailed, and traduced as the party upon whom the guilt and penalty involved in the case should mainly rest, and he should make it certain that nothing in his procedures can verify such an accusation.

What course, then, should a surgeon take when assuming the duties and the responsibilities pertaining to a case of penetrating wound of the brain?

In assuming charge of such a case, or of any other, the surgeon should ignore all considerations relating to himself, to his pecuniary interests or his reputation. His *duty to his patient* should be the sole consideration that determines his course. He has no right to adopt any measure, or to perform any operation, inspired by a desire for the *eclat* that its success may bring him; still less has he a right to abstain from any measure that in his judgment is necessary for the promotion of his patient's recovery, or that is best calculated to promote it, from any apprehension of censure that would attend its possible failure.

He should carefully observe the general condition of his patient, the location and appearance of the external wound; obtain any information he can in regard to the nature, size and propelling force of the missile, and of the direction from which it came. This information may aid him greatly in determining his subsequent steps. If the missile has passed beyond the surface; if it is of large size and of such a nature that it must necessarily be a source of irritation and danger, a careful exploration of its track should be made. For this purpose the finger is the best instrument. If the missile or other foreign materials be found, their prompt removal should be effected. If it has penetrated too deeply to be discovered in this manner, a blunt or bulbous probe, like that of Nelaton, may be passed carefully along the track made by the missile for the purpose of discovering its location. This should be done in the most careful manner possible; for it is to be remembered that the texture of the brain is so destitute of connective tissue that an exceedingly slight degree of force may penetrate it in any direction. An ordinary probe should not be used for this purpose, or if used at all, absolutely no force should be applied to it after entering the brain. If its own weight will carry it along the course of the wound, it may, perhaps, be used in that manner with reasonable safety. It is likely to do no harm, and to give as little information. But a slight degree of force applied to its propulsion constitutes

a new element of danger; for as Dr. Agnew says, no one can tell, when applying any force to an ordinary probe, under such circumstances, whether he is following the track of a missile, or whether he is burrowing a new channel through the brain. All recognized authorities condemn such a method of probing the brain, and an additional wound made by such a procedure may be more dangerous than the original injury, and constitutes not only a surgical blunder, but a surgical crime. Unless the missile—especially if it be a leaden ball—can be readily found and easily extracted, it is usually safer to allow it to remain within the cranial cavity than to undertake its discovery and extraction by promiscuous probing and violent measures for its removal. Exploration of the brain, if resorted to at all, should be done early. In consequence of the almost entire absence of contractile tissue in the brain, a bullet or other missile in penetrating it, leaves an open track along its course. If a small probe be introduced into such a wound, its own weight, if the position be favorable, will be sufficient to carry it forward as long as the wound remains unobstructed by clots. But when these form and have acquired firmness, they will offer about the same resistance as the normal brain structure, and then it must become difficult or impossible for the surgeon to know whether he is pushing his instrument along the course of a wound previously existing, or whether he is inflicting another and an equally dangerous one.

Does the probability of benefit to the patient, arising from an exploration of the brain, and a search for a missile which has lodged in its deeper structures, justify such a proceeding? If dangerous symptoms arise, and if the foreign body can be discovered in any portion of the brain, and its extraction accomplished by such measures as do not add to the original peril, their removal should usually be undertaken. But if they can not be found without a promiscuous and guideless hunt through the brain, they had better be let alone. This organ occasionally shows a remarkable tolerance of foreign bodies, especially metallic substances, like lead and iron, which readily become encysted, and have remained for long periods of time comparatively harmless tenants of the brain, or giving but slight evidence of disturbance from their presence. I would, therefore, in a doubtful case, prefer to give a patient the benefit of the chances which this fact affords, rather than to subject him to the dangers which attend the inflic-

tion of an additional injury, with the remote and uncertain prospect of resulting benefit.

If the missile inflicting the wound be of small size and the external wound correspondingly small, and no dangerous symptoms are presented—unless the missile is located quite superficially—no attempt should be made to explore its course through the brain, or to attempt its removal. Such measures would probably be attended with more serious consequences than the original injury. I have seen patients recover from such a wound in the anterior and middle portions of the brain without ever exhibiting any symptoms that would indicate a serious injury.

Or if, on the other hand, the missile has evidently penetrated the deep and central portions of the brain and lodged among the ganglia at its base, there is little to be hoped for from any attempt to discover its exact location and to effect its removal. It is likely to be fatal sooner or later if it remains; but the probability of prolonging life by attempting its removal is so slight as scarcely to justify an effort in that direction.

If it has penetrated the upper or frontal portion of the brain; if the missile is of large size and is of a nature that must necessarily render it a permanent source of irritation; or if it has passed through, or nearly through the brain, and lodged at or near the surface, its removal should be attempted. In the latter case, a counter-opening through the skull will facilitate its extraction. Here, as in every wound of the brain, thorough drainage and the most scrupulous aseptic dressings should be rigidly adhered to through the entire course of treatment.

Experience has shown that there are few portions of the brain into which missiles have not found their way and lodged for considerable periods of time, without giving rise to any serious disturbance of the system. These, it is true, are exceptional cases—but we know that they may occur; and they do occur with such frequency that in doubtful cases it would seem more prudent to accept the slender chances that their possibility bestows, rather than to complicate, by surgical procedures, even a prospectively fatal injury with a view to the doubtful benefits that *may* arise from their performance.

Whether the wounding missile be removed from the brain or left within it, the subsequent treatment should be conducted upon the general principles already stated.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS, from the French, by Dr. Illowy,
Cincinnati, Ohio.

THE PARTIAL RESPONSIBILITY OF THE INSANE.

By Prof. Ball (Paris). Address Delivered before the Academy of Medicine,
Paris, France.

THE echoes of a celebrated trial have drawn the attention of magistrates, barristers and alienists to a question that has already long ago formed the subject of a most energetic controversy—the *partial responsibility of the insane*.

The mysterious crime of Villemombe found its conclusion in the condemnation of Euphrasie Mercier. The trial showed that this woman who, with all her activity, with all her laboriousness, and with all her aptitude for commercial life, could not acquire a fortune, sought to obtain such by a crime.

But most interesting and singular facts have been brought to light in this trial. The mental state of Euphrasie presented singularities which threw grave doubts on her sanity; the same with her brother and her sisters, who were implicated with her in the same indictments as accomplices. We were confronted not with one alienated person, but with a whole family insane by heredity.

An expert medico-legal commission, consisting of Profs. Blanche, Ball and Motet, was appointed. An ordonnance of non-lieu* was entered in favor of all the accused with the exception of Euphrasie Mercier.

From all the facts brought out by the medico-legal inquiry, it was demonstrated, clearly, that this woman led a sort of double life—one consecrated to dreams, the other to realities. On the one hand, mysticism carried to the extreme, with hallucinations of sight and of hearing; on the other hand, good reasoning power, good sense, and a most remarkable commercial aptitude; in other words, she is seized with a perfectly characteristic delirium, which has, nevertheless, not disturbed her intelligence in so far as it is concerned with practical life.

It is impossible to find a case in which the problem of the partial responsibility of the insane is put forth with greater clearness than in this one. We see, in fact, on the one hand,

*I presume this is like to our *nolle prosequi*.—Tr.

a crime committed with an abundance of sage precautions and with remarkable adeptness; and, on the other hand, a condition of hereditary insanity, extending, almost without exception, to a whole family, and presenting most clearly the characteristics of a religious delirium.

What conclusions should be drawn, in a judicial sense, from such a bizarre assemblage, where reason and insanity seem to be parallel and, in some way, to support each other?

The cause of the insane has been pleaded before the tribunals and gained, at least in principle; and it certainly does not appertain to us to turn this current, which responds to one of the most just ideas, to the most salutary progress of modern times. We are far from the period in which a celebrated historian openly declared that there was no difficulty in bringing a dangerous lunatic to the gallows; and precept was joined to principle at that period, for the Count Ferrers, insane from delirium of persecution, was hung for having killed the manager of his estates, whom he accused of robbing him, with a shot from his pistol.

The situation to-day is greatly changed. Without doubt, legislation at all epochs admitted the irresponsibility of the insane; but who does not perceive that it is altogether a question of degree? For a long time, the meritorious efforts of alienists have enlarged our domain on judicial territory; but it has been at the price of an increasing struggle that the frontiers of irresponsibility have been moved back, and that the protection of the afflicted has reached its natural limits. The question, however, presents itself, if it has not sometimes surpassed these limits.

In all questions of this character, the difficulty commences only in the immediate neighborhood of the frontier. A maniac, one suffering from hallucinations, and the epileptic, are, in the opinion of all, outside of the sphere of judicial action. On the other hand, the alienated, and their number is great, who have preserved a considerable portion of their intellectual possessions, are governed, to a certain extent, by the same sentiments, by the same instincts, as other people; and it is for this reason that, to a certain extent, the common law may be applied to them.

This partial responsibility can evidently only be applied to such persons whose intelligence, affected on a certain point, has preserved in others its integrity; and even in this, this responsibility can only be applied on such points as are outside of the limits of the limited delirium. A person

imagines that his body is of glass—he is decidedly mad; but if he assassinates a person whose death he had strong reasons to desire, making use of a ruse and with astuteness, he has reasoned after the manner of ordinary criminals and deserves the punishment consequent upon his acts. English jurisprudence has so decided.

On the other hand, a person afflicted with the delirium of persecution becomes the persecutor and assassinates his physician, because he has placed him in the number of his persecutors who are conspiring against him; this man is irresponsible, because the crime of which he has been guilty is directly related to the delirium of which he himself is the first victim. He was really demented at the moment of committing the act, according to the expression of the penal code. The tribunals have so decided in the celebrated case of Capt. Eymes, despite the almost infernal shrewdness with which he took his precautions to murder Dr. Marchand, of Toulons. That which remained of the intelligence of this madman was altogether at the service of his delirious conceptions, and his will was dominated by that irresistible force which puts all liberty of action out of the question.

But one hardly dares, to-day, to take up a question open for so long a time, and upon which mountains of works have been written; a question that has, for a long time, been the subject of discussion in learned societies for the most competent men and profoundly studied by the most expert jurists.

You will nevertheless permit me, coming after such great authorities, to call your attention to two points of the greatest importance.

Outside of the question of criminality, nobody thinks of contesting the moral responsibility of certain insane, especially if the question be reversed, if I so may express myself.

Men of the greatest genius, persons most renowned, have shown indubitable signs of mental alienation. Has one ever been induced by this to diminish their merits, to deny the debt of gratitude which we owe them? Although insane for a period, Newton has, nevertheless, founded the system of the world. Although sequestered for a time in a lunatic asylum, August Comte was, nevertheless, one of the greatest philosophers who have ever existed. Although profoundly hallucinated, Luther nevertheless caused one of the most gigantic revolutions of modern times. Have the visions of

Joan of Arc prevented the historian from rendering justice to the nobility of her sentiments, to the greatness of her patriotism, and to the sublimity of her faith?

If alienated persons can merit rewards, how can it be sustained that they are incapable of meriting punishment, and that neither it nor chastisement should reach them? The first of these propositions logically entails the negation of the second. It is, therefore, not an absurdity, as has been pretended, to recognize that there exist insane criminals, despite the criticisms that have been launched against this expression, a perfectly legitimate one.

But there is another point of view that must not be omitted from the discussion. Without at all intending to sap the traditional foundations of the law, it can not be denied that an immense work has been going on in the mind, and that the axis of the moral world has been displaced. For the antique idea of responsibility, there has been substituted the more modern and more physiological notion of individual predisposition; and though the notion of a certain alienist, that all criminals are insane, is not entertained, there is nevertheless a tendency, and which is becoming more pronounced, to consider them a separate race of men.

"The great saints, the great heroes, the great criminals," said Prof. Benedickt, in London in 1881, "are beings outside of the rule; they constitute a veritable anomaly of the human species."

A society for criminal anthropology has been recently organized; it has already held its first meetings. Without desiring to express an opinion on the dominant idea of the organization, we may be permitted to say that it marks a stage in the progressive evolution which is carrying us rapidly to new conceptions, to unknown shores.

Let us leave, for an instant, the domain of abstract right and place ourselves on the territory of public utility.

Society does not avenge, it protects itself. This axiom, universally admitted, embraces implicitly the totality of the thesis which we seek to sustain. If the doctrine of the absolute irresponsibility of the insane, maintained right along by many great authorities and taken up again quite recently by modern observers, if this doctrine should have the force of law, most singular privileges would at once be conferred upon a whole class of individuals, more numerous than is usually believed and more dangerous than is generally

thought. The unclassed, the vicious, the eccentric, the alcoholics, the morphiomaniacs, would never be at loss to find physicians to elevate them, when necessary, to the dignity of madmen; and very soon the excesses committed by this nobility of criminals, with an impunity systematically guaranteed, would surpass the abuses of the "ancient régime," against which public indignation at one time revolted.

The justification of punishment, from the standpoint of the ideas we are now discussing, lies in its negative power—lies altogether in the sentiment of fear with which the prospective punishment inspires the badly constructed organisms; it is the protective barrier raised for the benefit of the honest citizens, who certainly have also certain rights to the sympathy of legislators. It is not a question whether, in the abstract, the culprit has merited the punishment which overtakes him, but whether the example thus made may serve to restrain and curb other organisms similarly constructed. There can be no doubt upon this point; fear exercises an incontestable influence upon the insane of the type we have here studied, and there exists no good reason for reassuring them in this respect.

We ourselves have heard certain persons boast that they had been declared irresponsible, and that henceforth they were free to do anything, since no penalty could reach them. It is profitable to cultivate such dispositions from the social point of view.

Undoubtedly a *phrenometer*, to use the ingenious phrase of Prof. Falset, does not exist, to measure the degree of responsibility attaching to every one of the subjects in this category. But can we not readily perceive that the same reasoning is applicable to ordinary criminals, and that to satisfy logic, it would be necessary to suppress all punishment? and if it be difficult to measure the degree of responsibility of certain afflicted ones, is that a reason why we should deny altogether the existence of such a responsibility?

Let us see in what measure this doctrine is applicable to the case forming the basis of this study?

Euphrasie Mercier—expert merchant, indefatigable worker, superior capacity—was possessed by delirium from the domain of mysticism, and still did not lose a line of her intellectual advantages. Cupidity was the motive of her crime, just as it gave the impulsion to the whole ensemble of her life; and the ingenious precautions with which she surrounded herself clearly demonstrate that she appreciated,

at their true value, the consequences of the situation she had created for herself, and that she, very justly, dreaded the results. The motives which governed her conduct are identically the same which dominate the ordinary criminal, and the special germ of the hereditary madness with which she was afflicted could, in no way, create for her a privilege or justify any exception in her favor.*

If we should be reproached with having insisted with too great complacency on the details of this woman's history, we would reply that general principles can be firmly supported only by a collection of detailed facts; and that we have here before one of those typical cases that possess all the value of an experimental demonstration. We find, in fact, that many insane, though they may not have a very complete notion of the good and of the evil, have, nevertheless, a very distinct perception of the dangers to which they expose themselves, from the standpoint of penal repression.

Let us, therefore, preserve the old principle of partial responsibility, and let us recognize one of those practical necessities which impose themselves upon all well-organized societies, despite the subtilities of logic.—*Trib. Médic.*

Selections.

The Curability of Cancer by Operation.

A Discussion before the Practitioners' Society of New York.

DR. J. D. BRYANT opened the discussion, and said that he had not studied directly concerning the length of time that had elapsed between the date of the operation and the date of recurrence. It had occurred to him, however, to reason upon the subject before the Society somewhat in the following manner: Cancer is either a constitutional disease or it depends upon a constitutional condition, or else it is a local disease depending very largely upon irritating causes. He had been accustomed to regard it very much as he had tuberculosis; not exactly a local, nor precisely a constitutional disease, but rather a disease that depends upon vulnerability of the tissues, one tissue being more vulnerable

*The verdict of the jury confirmed this view.

than another, the uterus or breast of one woman being more exposed than that of another, or responding to irritation more readily.

But whether local or constitutional, the only rational means of effecting the cure of cancer was by operative procedure. When considering the question of treatment the inquiry should arise: How does the disease cause death? It may do so directly by its extension, or by establishing a cachexia, or by absorption of poisonous material from the growth, or by the pain and depressing influence upon the patient's mind. This view of the case should teach the surgeon to operate early, and often. He had no question but that the best results would be obtained in cancer by operating before any of the surrounding tissues became involved—even the tissues lying in contact with the mass of disease.

Moreover, antiseptic surgery, which obviates the process of suppuration, will increase the favorable results.

But the answer to the question of operative procedure varies largely according to the part of the body in which the disease is situated. He could recall three cases of malignant disease of the paratoid, in two of which he felt satisfied that the length of the patients' lives would have been increased had he avoided operating for its removal; in one case, however, he was sure that life was prolonged considerably. He also referred to a case of multiple sarcoma in Bellevue Hospital, where he removed seventeen nodular masses, and prolonged the patient's life.

He had had two cases of malignant disease of the lip, on which he operated, and the disease had not yet returned, though distant four and six years respectively from the date of the operation. On the other hand, he had in mind a case in which he cut the lip away freely, and a short time after the operation the malignant disease developed in the submaxillary gland, which he removed, and soon afterward in the opposite gland, and after the removal of the last growth the return of the disease was very rapid.

But by operating early and often and under antiseptic precautions, he believed with Dr. Shrady that the percentage of recoveries for malignant disease could be increased, and also that life could be prolonged.

Dr. C. C. Lee concurred in what Dr. Bryant had said, not having had the pleasure of listening to the paper of the evening; that is to say, resort should be had to excision in cases of malignant disease under ordinary conditions, and

at as early a stage as possible. In cases of disseminated cancer, it always becomes a question whether or not all the disease can be removed. In cancer of the uterus or vagina, or both, he advised early operation, except when the neighboring lymphatic glands were involved.

Dr. R. F. Weir agreed with the opinion of many that cancer is a local disease, and he looked favorably upon the theory that it was of germ origin. Entertaining these views, he could but agree with Dr. Shrady and the gentlemen who had spoken, that, to obtain the best results, resort must be had to early operation. Not only should surgeons perform operations early, but they should teach their patients that they should be operated on early.

The surgeon should operate not only early, but widely from the diseased part.

Since the advent of antiseptic surgery, which permitted the surgeon to operate much more thoroughly and extensively than before its coming, statistics, amounting in the aggregate to 700 breast cases, gave a recovery, lasting more than three years, in ten per cent.

It was the fact that the surgeon could operate widely from the diseased part that had made lip-operations so satisfactory, and in six hundred cases, recovery, lasting more than three years took place in twenty-nine per cent.

Amputation of the penis for cancer had also given good results, and so had amputation of limbs for cancerous disease.

In these four classes of cases the best results had been obtained, and the great reason was because the operations had been performed wide of the disease. But on account of anatomical reasons, it is impossible to cut wide of the disease in cancer of the tongue, etc., and this fact is the most discouraging feature of such cases.

Dr. W. T. Bull was quite in accord with what had been said concerning the necessity for early, as well as very radical operations. He had been struck by the fact that in breast cases the patients come very late indeed for operation.

He believed that exploratory incision, especially in the early stage of breast tumors, deserved more general mention and adoption than it thus far had received. Probably, in nearly fifty out of sixty cases, the tumor exists a year before going to a surgeon for advice, and all this time the case is under the observation of the general practitioner, who hesitates to recommend an operation until sure of his

diagnosis, and this lapse of time is to the patient's detriment.

Dr. Bull had adopted the exploratory incision in three cases, and it had been extremely satisfactory. If the diagnosis can not be made with the unaided eye, the microscope can be used. In cases of suspicious ulcer of the tongue, and of disease of the uterus, the exploratory incision can be very readily practiced, and very much precious time in the early stage of a malignant affection be saved.

As an illustration of radical operation for cancer, he mentioned a case in which he removed the entire uterus two and a half years ago, and there had not been any recurrence of the disease. He believed that similar radical operations were not resorted to with sufficient frequency by those who perform surgical operations.

He also thought that it was rather exceptional to remove the skin thoroughly enough, and examine the axilla with sufficient care, in breast cases. With regard to the axilla, an examination of it through the skin was entirely inadequate. In every case of cancerous disease of the breast the contents of the axilla should invariably be removed as a part of the operation, and all of the adjacent tissues examined in the most thorough and extensive manner.

Dr. Weir remarked that the operation should be particularly conducted to the examination and removal of the most distant glands.

Dr. Bull further remarked that he had, during the last three years, given arsenic to nearly every patient upon whom he had operated for cancer, but had not been able to discover that it produced any effect whatever on the disease.

Dr. W. M. Polk said, concerning the use of internal remedies, that his experience coincided with Dr. Bull's. He had used various substances extensively, but without any evidence that they were beneficial.

There was one point that he had noticed in connection with operative procedure; that is, he had occasionally seen a case of cancer of the breast, in an elderly person, that was pursuing a slow course, had been in existence several years, and that without producing a very threatening effect upon the general health of the patient, but in which an operation had seemed to act as a stimulant and immediately thereafter the disease had progressed rapidly to a fatal termination.

With regard to operation for cancer of the uterus, sur-

geons had been deterred from operating widely on account of the liability of encountering the ureters. He had operated in six cases, and had become satisfied that he would have done better had he gone further into the surrounding tissues than he did. In one case he demonstrated that he could have gone safely three-fourths of an inch upon each side further into the surrounding parts, and hereafter he should feel disposed to be somewhat bolder in this respect than he had been heretofore.

Dr. A. H. Smith had had a case of a woman, sixty or seventy years of age, under observation nearly three years, where the question of operation had been constantly pressing upon him. The disease in the breast had progressed exceedingly slow, and there apparently remained a chance of the patient getting a number of years of life. He thought it was probable that the result would have been different had the patient been operated upon. The disease began at about the age of sixty.

Dr. Bull said it was a generally recognized fact that scirrhous beginning at that time of life had better be left alone.

Dr. Samuel Sexton had, at one time, been specially interested in examining proofs of death in cases of life insurance, and had noticed that in nearly all cases of death from cancer there had been the history of one or more deaths from consumption in the family.

Dr. W. M. Carpenter spoke on invitation, and said that the case mentioned by Dr. Smith brought to his mind one that he saw with an eminent surgeon in London, who advised extirpation, and then turned and asked if that was not good surgery, and if it was not what New York surgeons would advise. The answer was that, to the best of his knowledge at that time, an operation would not be advised by most New York surgeons, and that it would not be regarded as good surgery to operate in such cases. The patient was a thin old woman, who had a flat tumor in one of her breasts that was not giving rise to any symptoms, and had progressed so slowly that several years had been consumed in reaching its present condition.

Dr. Carpenter also referred to a case which he saw in consultation, and assisted at the operation for removal of the cancerous breast July 29, 1876. The specimen was examined microscopically by Dr. Francis Delafield, who diagnosed cancer beginning in the milk ducts. The nodule was about an inch and a half in diameter, was pain-

ful and increasing in size, was not attached to the skin, and there were no enlarged glands, although at the operation several axillary glands were removed. The patient was about forty years old, and is still living, and in the enjoyment of her usual degree of health.

On the other hand, he saw in August last a patient much enfeebled in health, about forty years of age, who had a lump in one of her breasts, about an inch in diameter, that had remained stationary for about two months. She was told not to give herself any anxiety concerning it; but her friends were told to watch it with the utmost care. It was not attached to the skin; there were no glandular enlargements that could be detected, and it had not been painful. The patient was advised to let the nodule completely alone, and to make sure that it was not pressed upon by her clothes. At the end of three months the report was that it had disappeared entirely.

The occasional occurrence of such cases doubtless had contributed much toward causing patients to postpone seeking surgical advice, and also had deterred many surgeons from operating as early as they should have done.

He regarded it as safest for the patient, however, to advise the earliest possible and most thorough ablation of every breast that contained a suspicious new-growth, which began at an age under sixty years.

To illustrate the necessity of operating widely, he referred to a case in which he examined microscopically a breast that was removed by Dr. T. M. Markoe. A little oblong body at considerable distance from the breast was selected, with other portions, on the supposition that it was an enlarged lymphatic gland. On examination of the sections, however, it was found that it was only a lobule of fat, but in the meshes of it could be seen distinctly occasional cells that presented the same appearance as those found in the alveoli in the cancerous mass in the breast.

Dr. Shrady, in closing the discussion, said that the main object of his paper was to enforce the necessity of early operation in cancer, and to persuade general practitioners to consult surgeons in such cases early enough to give the patient the best possible chance to get cured. Of course, it should be taken for granted that he would operate not only as early, but as widely as possible, and he would remove all adjacent glands, even though they might be apparently healthy. With reference to the dissemination of

cancer, he was in the habit, several years ago, of taking sections from specimens presented at the New York Pathological Society, and examining them with the microscope, and often at the edges of the incision he had found cancer-cells in an active state of proliferation and nests that had been cut through. Of course the results after these operations could not be compared with what could now be obtained in the same class of cases.

He had not said anything concerning the use of caustics, because they are useful chiefly in cases of superficial cancer, and also because it was his purpose to speak of operative procedures chiefly. Similar remarks were applicable to the use of internal remedies. He had used arsenic, but without special benefit. The best effects after operations had been produced by giving tonics.—*N. Y. Med. Record.*

Antisepsis in Ovariectomy and Battey's Operation.

BY ROBERT BATTEY, M.D., ROME, GA.

[Seventy Consecutive Cases—Sixty-eight Recoveries and Two Deaths.]

SINCE my last report of this series of cases, made two years ago, the number has increased to seventy. The method followed has been essentially the same as heretofore. I have continued to use the carbolic spray; to immerse my instruments and sponges in solutions of carbolic acid of strength one to forty; the pedicle tied with carbolized silk; the abdomen closed with sutures of the same material. In all the cases, the abdominal incision has been made in the *linea alba*. These cases have all been treated in my private infirmary.

Case 31—DOUBLE OVARIOTOMY.—Married, age thirty-five, six children and several miscarriages—the last in February, 1884, at six months, of twins, after which she observed the tumor in the lower abdomen. When I examined her, the 22d of May, the tumor had made rapid growth since February. The abdomen projects strongly forward; the tumor, which is freely movable, is very irregular in outline, and knobby, and fluctuates distinctly; the uterus, behind the tumor, far back in the hollow of the sacrum, is freely movable. She thinks the tumor first appeared in the right side. She is thin in flesh, and the pulse is small and rather irregular; appetite good; bowels normal.

Operation 29th of May, 1884.—Present Drs. H. H. Battey, West and Dozier, Glover (M. S.) and Mrs. Battey. Opened the abdomen five inches, emptied one cyst with the trocar; several secondary cysts were incised and the gelatinous contents turned out. Extensive omental adhesions, otherwise free; the pedicle, long and broad, sprang from the left side, ligated in two parts and dropped; the right ovary, being also cystic, was ligatured and removed with a cyst of the parovarium; the abdomen contained a pint and a half of ascitic liquid; the omentum required several ligatures; the incision was closed throughout with carbolized silk. Patient was put to bed, in fifty-five minutes from commencement of the ether, in good condition, with but slight shock. The stomach behaved well; the sutures were removed on the fourth and fifth days; the wound was dry and well united.

The maximum pulse, 110, and the maximum temperature, 100.5 degrees, occurred on the afternoon of the first day. She sat up on the fifteenth day, and returned home on the twenty-ninth day.

Case 32—BATTEY'S OPERATION.—Married, age thirty-four, no children, two miscarriages—last one five years ago. Suffered with uterine troubles for twelve years; for five years she has been a confirmed invalid, and three years of this time entirely bed-ridden. She was two years under constant uterine treatment, with improvement the first year, but none the second; she complains especially of the spine and ovaries. The uterus is in good condition and in proper position, but the ovaries are both prolapsed and very tender; these organs have always been tender and the seat of pain.

Operation 31st of May, 1884.—Present Drs. H. H. Battey, West, Glover (M. S.) and Mrs. Battey. Ether, carbolic spray and solutions; abdomen opened one and three-quarters inches, both ovaries removed; the right ovary contained a hæmatic cyst, which ruptured in removal; left ovary very small and shriveled, and contained recent *corpus luteum*; several small, thin-walled, parovarian cysts, with pellucid contents, were removed. She was put to bed without shock and in excellent condition. For three days there was considerable nausea and occasional bilious vomiting; sutures were removed on the third, fourth and fifth days; the maximum pulse, 88, and the maximum temperature, 101.2 degrees, occurred on the afternoon of the second day. She

sat up on the fifteenth day, and returned home on the twenty-seventh day.

Case 33—SINGLE OVARIOTOMY—DEATH.—Widow, age sixty-one, eleven children. She observed the abdomen enlarging nearly two years ago. In March, 1884, she consulted Prof. Westmoreland, of Atlanta, who tapped her, removing eighty ounces of liquid, and advised against ovariotomy. She entered my infirmary the 3d of June, larger than before the tapping. The abdomen is uniformly distended with a compound cyst, which fluctuates freely, with considerable solid material about the base; the abdominal wall moves freely over the tumor, which can be lifted a little out of the pelvis, though not very much; the subcutaneous abdominal veins are enlarged and stand out plainly; the uterus lies behind the tumor and in the left side of the pelvis—it is senile and healthy. Her general health seems good, though she is thin in flesh and has indigestion; bowels regular; urine normal; tongue clean, a little reddened; heart and lung sounds are healthy. Notwithstanding her age and some suspicious symptoms, I deemed it proper to give her the chances of an operation, influenced by the consideration that malignant deposits in an ovarian tumor, when cleanly removed, frequently do not return in other parts.

Operation 5th of June, 1884.—Present Drs. H. H. Battey and West, Glover (M. S.) and Mrs. Battey. Ether, carbolic spray and solutions, carbolized silk ligatures and sutures. Opening the abdomen eight inches, I found extensive parietal, omental and pelvic adhesions, which were separated with difficulty. There were numerous thin-walled, pellucid cysts of the peritoneum, of various sizes from a shot up to a walnut. A large cyst of the tumor being tapped, yielded a gallon of thick, viscid, greenish liquid; the remainder of the tumor was composed of numerous cysts with gelatinous contents and a mass of cancerous material as large as the fist. Several of these cysts burst in separating adhesions and their contents escaped into the abdomen; a dozen ligatures were required to the adhesions. The pedicle from the right side was of good length and moderate size; the left ovary and uterus healthy—a rubber drainage-tube was lodged in the lower angle of the wound; weight of tumor, twenty pounds; the pulse was good throughout. She was put to bed in one hour in excellent condition, and required no opiate; there was slight vomiting and moderate nausea. On the second day, in the afternoon, the pulse ran to 140

and the temperature to 102 degrees; the urine was extremely scanty, and she slept almost the entire day with but a quarter grain of morphia. On the third day, the pulse went to 150 and the temperature to 102.8 degrees; secretion of urine entirely arrested, but a few drops could be secured by the catheter; she died at 4 P. M.

The autopsy was held two hours after death by Drs. H. H. Battey and West. The body was much emaciated, abdomen a little tympanitic, wound firmly united except at site of drainage-tube; there was no pus, but about three pints of nearly odorless bloody serum in the cavity; Douglas' space was closed in with adhesions, and contained a mass of soft, cancerous tissue, the left ovary and bloody serum; the bladder was empty and left ureter distended; the kidneys were apparently healthy, the capsules adherent, and the left contained in its pelvis one and a half drachms of pale urine; the ovarian pedicle was healthy, and no blood-clots were found.

Case 34—BATTEY'S OPERATION.—Single, age eighteen. Prior to the appearance of her menses at the age of fourteen, she complained of pain in the left ovary, which has continued since. At first, this ovarian pain was confined to the periods; but for two years past it is of daily occurrence, and in both ovaries, being especially severe at the menstrual epoch; her general health otherwise is good. She spends most of her time in bed. The uterus is *in situ* and apparently healthy, though tender upon pressure; the ovaries are extremely sensitive, especially the left one; the tone of the stomach and bowels is, in general, good; the bladder has been irritable for two or three years; the pulse was 100 and the temperature 99.5 degrees.

Operation 5th of July, 1884.—Present Drs. H. H. Battey and West, Glover (M. S.) and Mrs. Battey. Ether, carbolic spray and solutions, carbolized silk ligatures and sutures. Both ovaries were removed by abdominal incision; there were no adhesions. The left ovary, of double the usual size, contained a hæmatic cyst, which ruptured in handling; the right ovary was as large as a black walnut and contained cysts with clear contents, two of which burst in removal; the uterus was very small, but otherwise healthy. The operation consumed thirty-five minutes. At 9 P. M., the pulse was 124 and the temperature 102 degrees. The maximum temperature, 103 degrees, occurred upon the eighth day, and the maximum pulse, 126 degrees, on the ninth

day, in connection with acute inflammation of the right parotid gland, a metastasis from the ovarian operation. She returned home on the 11th of August.

Case 35—BATTEY'S OPERATION.—Single, age thirty-five. She has suffered for twelve years with pain in the ovaries, aggravated at the menstrual periods. She entered my infirmary on the 21st of June, 1884; had never been examined. I found the uterus a little retroflexed, the vagina short and narrow; by rectal touch, the ovaries were found prolapsed, enlarged and very tender; the *os uteri* is healthy, the cervical canal patulous, and there is no leucorrhœa. The seat of her malady is evidently in the ovaries. She suffers much with irritable bladder; the digestive organs are broken down; she has more or less constant nausea and daily vomiting, which has continued for more than a year. Medicine does little or nothing for her relief.

Operation 7th of July, 1884.—Present Drs. H. H. Battey, West, Glover (M. S.) and Mrs. Battey. Ether, few drops chloroform, carbolic spray and solutions, carbolized silk ligatures and sutures. Laparotomy, both ovaries removed; patient put to bed in twenty-five minutes. The ovaries were both enlarged and contained hæmatic cysts with dark, grumous contents—no adhesions; the Fallopian tubes, being healthy, were not disturbed. The maximum pulse, 104, and the maximum temperature, 101.5 degrees, occurred upon the second day. She sat up on the fifteenth day, and returned home on the 2d of August.

Case 36—BATTEY'S OPERATION.—Widow, age forty-five, one child. Has complained for several years of pelvic pain; there is uterine myoma, which is steadily growing.

Operation 22d of July, 1884.—Present Drs. Hudgings, of Knoxville; H. H. Battey, West, Glover (M. S.) and Mrs. Battey. Ether, carbolic spray and solutions, carbolized silk ligatures and sutures. Opened the abdomen in median line through one and a half inches of fat; removed both ovaries; tubes healthy and not disturbed. The right ovary was cystic and contained a recently ruptured follicle corresponding to the last menses; the left ovary was scarcely half the natural size, but appeared to be healthy. The maximum pulse, 92, and the maximum temperature, 100.8 degrees, occurred on the second day. She sat up on the fifteenth day, and returned home on the 22d of August.

Case 37—BATTEY'S OPERATION.—Married, age twenty-eight, three children—youngest nineteen months. Invalid

for nine years; complains of daily ovarian pains, especially aggravated at her menstrual periods. She entered my infirmary the 14th of July, 1884, with extreme sensitiveness of both ovaries, which did not admit of careful examination, except under the influence of an anæsthetic. There is slight catarrh of the uterus, but otherwise the organ seems healthy. The ovaries are greatly enlarged.

Operation 29th of July, 1884.—Present Drs. Lovelace and West, Glover (M. S.) and Mrs. Battey. Ether one and a half pounds, chloroform one ounce; very hard to impress. Carbolic spray and solutions, carbolized silk ligatures and sutures. Opened the abdomen in the *linea alba* about two inches and removed both ovaries; the tubes, being healthy, were not disturbed; operation twenty minutes. The ovaries were not adherent; the right, as large as a small orange, contained several cysts with clear contents, and *corpus luteum* corresponding to the recent menstruation; the left ovary, more than double the normal size, contained four hæmatic cysts. She was put to bed with a small, weak pulse, 56 to the minute, and a temperature of 99.2 degrees. The maximum pulse, 76, and the maximum temperature, 101 degrees, occurred on the second day. She returned home to Arkansas on the 18th of August.

Case 38—SINGLE OVARIOTOMY.—Married, age forty, six children—last ten years ago. She has had no menses for eight years, and thinks she has passed the change of life. Her general health is fair. Eight months ago she felt bearing-down sensations in the pelvis; she thought it falling of the womb and used a sponge pessary. She soon discovered a tumor, the size of the fist, in the right iliac fossa, and discontinued the sponge; for the past three months the tumor has grown rapidly and alarmed her, but does not give pain; it rises above the umbilicus and projects strongly forward, like a pregnant uterus; moves freely under the abdominal wall, is nearly central, but with more fullness in the right side; is a little irregular and multilocular, with one principal cyst which fluctuates distinctly. *Per vaginum* the tumor lies to the front and right side of the uterus; which latter is depressed, retroflexed and pushed into the left side of the pelvis. The uterine cavity is two and three-quarters inches, there is moderate leucorrhœa, and the uterus is tender to pressure; general health fair, tongue a little furred, bowels irregular.

Operation 16th of August, 1884.—Present Drs. Gray, of

Atlanta; Toole, of Alabama; Berlin and Barton, of Chattanooga; Glover and Huzza (M. S.), and Mrs. Battey. Ether, carbolic spray and solutions, carbolized silk ligatures and sutures. Operation done in twenty minutes. No adhesions, tumor from right side; the left ovary was white, hard, tunic leathery and much corrugated; no *corpora lutea*; pedicle, broad and thin, was tied in two portions with silk. The tumor weighed twelve pounds, and consisted of one principal cyst and several smaller ones. Patient was put to bed without shock, rallied well and required no opiate. The maximum pulse, 110, and the maximum temperature, 102.8 degrees, occurred on the afternoon of the fourth day. She returned home well on the 6th of September.—*Kansas City Med. Index*.

The Deleterious Influence of Alcohol on Children.

BY PROF. DEMME, BERNE, SWITZERLAND.

Twenty-second Medical Report of the Jenner Hospital for Children, Berne.

WE give the following abstract of the above very timely paper, in which this well-known writer lays down his conclusions on this important subject, drawn from most careful study, and formed in a large field of observation, and we feel that in this we are doing our readers a real service, for his views in opposing, and justly opposing, the therapeutic abuse of alcohol, touch upon some very important principles in the treatment of children's diseases.

Demme first cautions against the use of alcohol, in whatever form, as an antipyretic, for although the fever-lowering power of large doses of alcohol can not be controverted, inseparably combined with this action is the injurious influence of alcohol on the energy of the heart, on the cerebral vessels, and on the cerebral activity itself, and we have a salicylic acid, antipyrin, thallin, etc., agents of a more innocent nature, to accomplish this object.

The use of alcohol as appetizers and stimulants to digestion has been rapidly gaining ground among the people, and our nurslings are given their cognac for this purpose. As a sad consequence of such erroneous dietetic measures, and as a direct result of this too early and too abundant use of alcohol, Demme has met with two cases of cirrhosis of the liver, otherwise so rare in children. Both cases terminated fatally;

in both cases the abuse of alcohol was proven, having been begun originally for dietetic purposes; and in both syphilis could be excluded. Further more, Demme could, in a considerable number of cases, trace a marked cessation or even a retrogression in mental development to the habitual abuse of alcoholic drinks, which in three cases led to epilepsy, while in two cases acute alcoholic intoxication terminated in this neurosis.

In addition to these five epileptics, Demme could trace twenty-one of seventy-one young epileptics, all of which had been under his own observation, to parents one or both of whom were addicted to drunkenness. An unquestionable rôle as an etiological factor the early use of alcohol played in a number of cases of night terrors and of chorea minor. Demme claims that there can be no question that there are infantile organisms in which even moderate quantities of alcohol not only prove injurious in the accepted sense, but can give rise to severe diseases of the nervous system. The introduction of alcoholic drinks into the infantile organism, be it by the people or by the profession in the usual routine manner, must be absolutely discountenanced.

Alcoholics may be administered to children *only as a therapeutic agent, after the condition of their various organs has been most carefully estimated by the physician*, as a powerful auxiliary in the medical tonic regimen in rickets, scrofula, tuberculosis and all wasting diseases of chronic character. On account of the stimulating action of alcohol on the nerve centers, especially on the musculo-motor center of the heart, alcoholics are mainly indicated in pædiatrics to spur on the flagging heart in infectious diseases, in asthenic pneumonia, in cholera infantum, in which latter they also serve, according to Binz, as a respiratory food. But the use of alcoholics as food or as a luxury must be positively denied to children.

Intubation of the Larynx for Obstructions Arising from Inflammatory Conditions.

OUR readers are all, to some extent, familiar with the new device invented by Dr. Joseph O'Dwyer, of New York, of introducing a metallic tube into the larynx and leaving it there to be self-sustaining any length of time necessary for the obstructive condition to subside.

Failures in tracheotomy led Dr. O'Dwyer to make a study

of the possibility of introducing a tube in extreme cases, instead of opening the trachea below the seat of obstruction. Having a position in the New York Foundling Hospital, which contains a large number of children, and affords frequent opportunity for examining the anatomy of the larynx, and (after some progress in the construction of a tube for trying it in the living patient) he gradually worked out a practical instrument.

Five years ago Dr. McEwen, of Glasgow, Scotland, was working upon a rubber tube to take the place of tracheotomy, but in his endeavor the tube was not self-sustaining in the larynx, and would not permit the epiglottis to close down. A quarter of a century ago M. Bouchut, of Paris, made a tube of metal which was employed in seven cases, but they all died. The Paris Academy of Medicine, under the lead of Trousseau, condemned the use of the tube, and Bouchut, discouraged, discontinued his endeavors to perfect the instrument, and it went out of notice and out of memory until revived in connection with the discussion of O'Dwyer's tubes.

As at present put up by the instrument makers, there are five tubes, adapted to different ages, from one year to twelve years of age. Larger tubes must be made to special order. There is in the case a gag of new construction, an instrument for introducing the tube, and another for its extraction.

The manipulations are said to be easy and quick after practice, but difficult in unpracticed hands. Dr. Jennings, of Detroit, is reported (in the *New York Medical Record* for November 11, 1886, p. 645) to have failed altogether to get the tube into the larynx. It is doubtless a question of practice and manual skill. The successes reported are far in advance of anything ever experienced in tracheotomy. There are two obvious reasons for this. The first is, that the parents of sick children will consent to the measure as soon as there are alarming symptoms; and the second is, that the shock of a surgical operation is avoided. The age of the patient and his exhaustion, through long suffering and insufficient oxidation of the blood, render him especially susceptible to surgical shock.

The use of the instrument is being rapidly introduced; Dr. Waxham, of Chicago, having become early enthusiastic over his success, as published in the *Chicago Medical Journal and Examiner*, and Dr. Cheatham, of Louisville, as published in the *American Practitioner and News* for November

13, 1886, has also become enthusiastic in praise of the instrument.

Dr. David Prince, of Jacksonville, Ill., sends us and permits us to quote two successful cases of intubation occurring in his practice.

The first, on November 25th, in a three-year-old boy, a patient of Dr. Malone, suffering from diphtheria for several days, the patch of vegetation being visible on the palate and in the pharynx. The difficulty of breathing had become alarming, but manipulation (under ether) dislodged a large quantity of exudation, improving the respiration. The final introduction of the tube rendered the respiration easy. In a short time the tube was coughed out and held from being swallowed by the string which had not been detached. No further alarming dyspnoea occurred, and the tube was not returned. Under the use of calomel in minute doses, quinine and alkaline vaporization, the child made a slow recovery, though the diphtheritic vegetation continued several days. The lungs escaped invasion. The second case was on December 9th; one of membranous croup, there being no diphtheritic vegetation in sight.

A seven-year-old boy, a patient of Dr. Halsted, exhibited a gradually increasing dyspnoea, until breathing was labored and the vermilion border of the lips dusky. The introduction of the tube (under chloroform) afforded complete and permanent relief. The tube remained in place one hundred and six hours, and at the expiration of this time it was removed (under chloroform) without return of dyspnoea.

The child could whisper, and could swallow both liquids and solids while the tube remained in the larynx.

Dr. Prince thinks that operators who have not become skilled through practice should always make the attempt to intubate with the patient in a state of anæsthesia. Fright is avoided in this way; all struggling and consequent alarm of the patient's friends are also avoided. The operator himself is likely to be more deliberate, and to have less to distract him than with the child in the waking state.

Dr. Prince counts his tracheotomies for inflammatory obstructions by the number of his thumbs and fingers, and his failures in the same way. Some of the cases have died of shock, some have been relieved for a day, but all have died within four days from the time of the operation.

It is generally conceded that in those cases in which the small bronchial tubes and the alveoli become invaded, death

is inevitable. In these cases, intubation, relieving the laryngeal dyspnœa, will produce temporary relief and prolong life, but the subsequent invasion of the lungs will produce a secondary pulmonary dyspnœa beyond the reach of any remedy. The case is the same with tracheotomy.—*St. Louis Med. and Surg. Jour.*

The Coming Treatment for Phthisis.

THE treatment of phthisis by medicated gaseous enemata, devised by Dr. Bergeon, of Lyons, has recently received the attention and measured approbation of Dr. J. Henry Bennett, who gave a full account of it in the *British Medical Journal* of December 18, 1886. We have already explained the general principles of Bergeon's method. He found that carbonic acid gas introduced into the system by the veins of the intestines was harmless, painless, and without special medical effect; in other words, it was a practically inert gas. He then medicated this with sulphuretted hydrogen and the medicated gas was injected per rectum. The sulphurous gas was eliminated by the lungs, causing remarkably beneficial effects.

Dr. Bennett says: Dr. Bergeon claims marvelous therapeutic effects for this medication. He says that he has been applying it for the last two years to all the cases of chronic pulmonary and throat disease that have come under his observation; indeed, in more than two hundred cases, although the experiments were made at Lyons, where the climate is bad, the results have been successful to a degree that has surprised and astonished him. He says that, in early phthisis, even in acute general phthisis, a form of the disease nearly always rapidly fatal, in two or three weeks there is generally an arrest, and in a few months a cure. Even in advanced, incurable phthisis, great amelioration is obtained. The pulse is lowered, the temperature falls, the night-sweats cease, the appetite returns, the expectoration rapidly diminishes, losing its purulent character, and the cough becomes less harassing and frequent. The amelioration, he says, is also rapidly obtained in advanced laryngeal phthisis, when all local or constitutional treatment has failed to give ease, or to arrest the ulcerative process. Asthmatic attacks are relieved with more certainty than by any other means, including the hypodermatic injection of morphine.

"These are very marvelous statements; but, coming from a scientific man of mature age occupying a prominent orthodox position in a great medical center (Lyons), and brought forward as the result of several years of trial and observation, they must command attention and counter-trial. Certainly, to pass from eight to ten or twelve litres of medicated gases through the intimate structure of the lungs, several times in twenty-four hours, is a tangible reality, and a new departure in thoracic therapeutics. The entire structure of the lung is certainly reached; both the healthy and the morbid tissues are thoroughly searched out and permeated."

Bergeon has communicated his views to the Paris Académie de Médecine, and his method has been tried "with unexpectedly favorable results" in the hospitals of Paris, and at Lyons.

The injections are made twice daily. At first only about one litre of gas is used; and this amount is steadily increased. Great attention to details is needed; the sulphur must be pure, and no atmospheric air must be admitted.

Dr. Bergeon's method is novel, and with so many strong indorsements it plainly deserves an extended trial. It is not one that can be widely used at present, owing to the care and time needed for its application.—*Medical Record, New York.*

The Medical Study of Inebriety.

BY T. D. CROTHERS, M. D.,

Superintendent Walnut Lodge, Hartford, Conn.

THE most intelligent medical men of to-day are like judges at the bar—ready to hear all testimony, but are very careful to decide with caution and conservatism. To-morrow new testimony appears, and the judgment of yesterday is reversed, of dogmatic statements and positive assertions. We are always suspicious of imperfect knowledge and unfairness.

Medical scientists who fully realize the great heights and depths of the unknown that bound them on all sides become investigators and explorers, rather than critics and defenders of some theory.

Inebriety and the inebriate are fast becoming great national topics which physicians must solve and teach how

to remedy. Over 100,000 persons are dying every year from this cause, and to accept and not act upon the theory of a moral causation is to proclaim our profound ignorance of the operations of Nature's laws on the human organism. The learned clergyman who pronounced all drinking a vice to be cured by more severe punishment is to be excused on account of his imperfect knowledge of physiological science; but the physician who says that all drinking is wickedness, and all drunkards could be made to stop by force, makes a sad display of his non-expertness, knowledge and judgment.

The almost countless theories of the nature and remedies for inebriety, like weak scaffolding, will neither support the defender or give proper opportunity for correct study. What is needed to-day is an accurate study of the inebriate; a study of the causes and conditions which have brought on the drink impulse; a study of the heredity, the early growth and culture; also the direct physical lesions which have broken up the nutrient brain-centers. From these inquiries will appear the facts and the laws which govern the origin, growth and termination of this evil.

Like the astronomer, who long and patiently notes the positions of the stars and takes measurements of the conditions in which they appear, and with other facts determines the great laws of their movements in the heavens, so the inebriate and his history must be studied and noted, and as accurately and incessantly; and from these exact histories we shall find the laws and conditions which make an inebriate of one man and protects his neighbors equally exposed. There will be no mystery about these cases when they are better known. All of the sufferings and losses which come from them will be realized and provided against, with an intelligent application of the laws of cure and prevention. This is the new field for medical men which promises more gain to the human race than any other department of preventative medicine. Here insanity, criminality, pauperism, idiocy and other degenerations can be checked and prevented in their infancy. Here we can find the explanation of those strange inebriates who exhibit alternations of sanity and insanity, honesty and criminality, honor and meanness, truthfulness and falsehood, kindness and brutality, love and hatred, frankness and treachery, and practically the most opposite mental qualities as well as physical symptoms of health and disease.

What are the laws and forces which develop this state of

brain disorder? What causes, exciting or predisposing, are constantly developing so many cases of this disease? What are the preventable causes which develop inebriety? When started, what are the best means to restore and cure the victim? These are questions which can not be answered by theory and speculation.

The moralist and prohibitionist who answer these are like blind leaders of the blind. Such questions must be answered by physicians, based on long study of the facts. Physicians who give their time and energy to sustain societies and political parties not only lose sight of the real work, but do themselves a great injury, by following vague theories when they should be explorers over the frontiers, discovering new facts and laws. This work can not be done by specialists; they must have the aid of the general practitioner.

Here, as in the study of insanity, the observations of the family physician are of the greatest value. His opportunities for noting causes and conditions are very great, and his conclusions are often more accurate. The physician who is familiar with the family history, growth, culture and occupation of the victim, also of all the surrounding and conditions which make up his everyday life, has at his command facts from which to determine the prevention and cure.

The study of this subject must be from the side of symptomatology. Many and accurately tabulated histories must be made from which the facts can be ascertained. This is the only approach to the solution of the drink problem. Pathological study fails more completely to reveal any facts than in cases of insanity. The study of alcohol on the organism, pathologically and clinically, fails to give more than some vague and confused facts which, by themselves and alone, are almost worthless, but, when combined with a full physiological and psychological history and an accurate knowledge of the spirits used, may be of value. Studies of alcohol are yet in their infancy; the clinical and physiological action of alcohol are alike largely unknown. The composition of the common spirituous drinks of the day are also unknown, even by the manufacturer.

He rudely combines certain spirits and other substances for their color and taste, and has no conception of the complete alcohols that are present and forming. The chemist only can form some idea of the spirit compounds from his most rigid and delicate analysis. To know the action of

alcohol on the body we must first have a distinct, simple alcohol; not a complex body that is constantly changing, but an alcohol from a certain substance made in a certain way. Then we must have a long series of accurate observations of its action on a healthy body. The error of studying the effects of the different spirit compounds, with no conception of what these compounds are, is apparent in many papers, and even books, on this subject. A careful study of inebriety points to alcohol as secondary in the list of causes. It is in many cases only the spark which ignites a long train of events and causes, giving them great intensity and energy. It is always a symptom of degeneration and disease, which not only began long ago, but is now growing with great rapidity. To remove the alcohol alone is only to change the direction of the disease current; to quarantine the victim and control all of his conditions of living, both mental and physical, and build up the body—these are the true methods of restoration and cure.

The medical study of inebriety must be made before the nature of this malady can be understood. The necessity for help felt in so many homes demands some method for cure and relief. The physician has never been taught to consider them diseased, and never accepts the theories of the time, and so neglects one of the great future fields of medicine. When called to treat a case suffering from a pro-paroxysm of drink, and feel as if his efforts were secondary to some form of moral remedies that are needed, he should take up these poor victims and study all of their conditions of life, the same as in typhoid fever, conscious of an exciting and predisposing cause which can be discovered and prevented.

A physician, at my suggestion, made a careful study of the case of his son, who was in a rebel prison and became incapacitated for hard work, but drank to great excess at times. He found that each attack was preceded by constipation and acute dyspepsia. By treating and remedying these conditions the drink paroxysm was prevented. In another case an inebriate, whose case was aggravating and extreme, was permanently cured by changing his employment and living a more regular life.

The specialist finds in his imperfect studies many such cases, where conditions and states of living seem to be the exciting causes.

The family physician should have discovered this condi-

tion and the remedy long before. A very excellent clergyman was brought to my care by his physician for opium inebriety, following the long use of alcohol. The causes were partial inheritance and general intemperance in the gratification of every whim and caprice. If this physician had realized the true state he could have prevented the ruin of a strong, noble man. These cases are far too numerous, and physicians who are conscious of crowding and limited practice seem strangely unconscious of these poor, sick men mutely appealing for help from every side—sick men who can be helped and restored to temperate and healthy living again, now neglected and dying, victims of the ignorance and persecution of the times. If inebriates and their friends could realize how much the family physician could do to prevent and permanently break up the drink impulse, his services would be in constant demand. If the physician would study each case from a purely scientific point of view he will be amazed to find that it is within his power not only to cure but prevent a large amount of the inebriety of to-day. Medical men who spend the time in lecturing upon the dangers of alcohol and the evils of inebriety are practically retarding the scientific study, and coming down to the level of theorists and non-experts. Every medical man should be a pioneer investigator, ascertaining the facts and teaching them.

There will be no real progress in the amelioration of this great drink disease until physicians take up the subject and become the recognized authority in the nature, causes and remedy of this new form of insanity. The following incident is given to illustrate a common mistake in the medical profession: A very able physician condemned the notion of disease in inebriety and criticized my writings bitterly. He wrote and gave addresses, declaring inebriety always a vice, and the treatment should be a more rigorous enforcement of law and severe punishment. He urged a whipping-post as the best remedy. His papers attracted attention, and are indorsed to-day as authority in many circles. Years after, this physician brought me for treatment his inebriate son. All of his previous views had changed. When necessity brought a case of inebriety for his special study, all his theories vanished, and he recognized the facts he had so stoutly denied before.

The temperance agitations in society and in politics of to-day will all die away before the march of scientific study

by the medical profession. Already a few bold men have crossed the frontiers—the pickets of the great army that is to follow. Science and grim necessity for help appeal to medical men everywhere for the facts and laws controlling the origin, line of march and destination of this great army of inebriates.—*Medical Register*.

New York Neurological Society.

THE PRESIDENT, C. L. DANA, M.D., IN THE CHAIR.

DR. C. L. DANA reported a case of

PACHYMENINGITIS HEMORRHAGICA,

with large meningeal hemorrhage pressing chiefly on leg center; right hemiplegia, total paralysis of leg, aphasia, hemianæsthesia, convulsions limited to arm and face. Death. Exhibition of specimen.

The patient was a woman about sixty-eight years old, and came into the hospital with complete motor aphasia, and unable to give any previous history. She had no paralysis at first, but three days after admission she had a general convulsion followed by right hemiplegia, total in the leg, and some right-sided anæsthesia. On the second and third days she had a series of brief localized convulsions involving the face bilaterally and the right arm. These were carefully observed. The movements were clonic, beginning in the muscles of the lower jaw. The other peculiarities were these:

1. The pupils remained small during the convulsions. When wider convulsive centers were discharging, as in general epileptic convulsions, the pupils were dilated. It is not probable that in this case there was some uræmic element, because the post-mortem disclosed no sufficient cause for it.

2. The conjugate deviation of the eyes was at first, and very temporarily, toward the side of the lesion and away from the paralyzed side. The head also was turned toward this side. When this occurs it is ordinarily spoken of as a paralytic deviation. This does not explain it here, since almost immediately the head and eyes were turned strongly to the opposite and paralyzed side.

He suggested that the first deviation was due to an in-

hibition of the activity of the associated nuclei of the third and sixth nerves that innervate the external and internal recti of the two eyes. There are many facts which tend to show that the first stage of convulsion is a transient paralysis due to a sudden discharge of inhibition centers. These are of a higher, more developed class than the centers for motor discharges, and would be affected first. We would have then loss of consciousness, inhibition of motion and muscular relaxation; then motor discharges and tonic and clonic convulsions.

3. The temperature on the paralyzed side was one degree higher than normal, and higher by a degree than that of the other side. This is the rule in intracerebral hemorrhage and hemiplegia, but the speaker was not aware that it has been established in cortical hemiplegias. In meningeal hemorrhages the temperature is often below normal according to Minot.

4. The presence of hemianæsthesia.

The patient died on the third day. Post-mortem showed chronic pachymeningitis over both convexities, but more on the left side. On the left convexity there was a very extensive fresh meningeal clot pressing upon and flattening, especially the upper half of the central convolutions. Brain substance normal.

Dr. M. Allan Starr related the history of a case of

CORTICAL EPILEPSY WITH TEMPORARY APHASIA ; SYPHILITIC
GUMMA COMPRESSING THE LEFT SECOND FRONTAL CON-
VOLUTION IN ITS LOWER POSTERIOR PART ;
RECOVERY.

Chas. S., aged thirty-two, had always been healthy and a hard worker. He had an attack of sciatica four years ago, and three years ago had a hard chancre. He had never had convulsions or nervous affection. Family history good. During November, 1886, and the first two weeks of December he did not sleep well, was slightly dizzy, his head ached a good deal, chiefly at night. December 15th, while walking with a pail in his right hand, he suddenly let it drop, losing all power in hand and arm. There was numbness in the hand. He was unable to speak to his companions. He did not feel dizzy or notice any pain in the head; he did not lose consciousness or fall. He understood his friends' questions, but could not answer. Power in the hand and

arm, and speech returned within half an hour. The next morning he went to work, as well as usual. Two days later a second attack occurred, beginning with a numb feeling in the tips of the fingers, gradually extending up the hand and arm. Then the fingers became rather forcibly flexed and stiff, but by a voluntary effort he could straighten them. No clonic spasms of fingers, and wrist and elbow were not bent. The numbness and stiff feeling soon extended to the face, which was drawn to the right side with some force. Speech was again lost. No loss of consciousness. The attack lasted about twenty minutes. Such attacks had occurred every other day, then every day, and finally twice a day up to January 3d, and during this time the headache and insomnia were increasing steadily. The character of the attacks was not uniform. Sometimes the spasm would begin in the face, though usually the arm was first affected. Both were involved in every attack, but the spasm and numbness never reached the leg. The hand felt cold during the attack, though warm to the touch. On one occasion he had for four days great difficulty in making himself understood by words. Examination by Dr. Starr showed slight paresis, and slight tactile anæsthesia in right hand; no affection of face or speech, no cardiac symptoms. Though suffering from headache, percussion of skull did not reveal any tender spots. Thrombosis, endarteritis syphilitica, diffuse encephalitis with sclerosis were excluded, and the diagnosis was reached of gumma in the membranes resting upon the brain surface, giving rise to irritation and consequently to an occasional nervous discharge, but not of sufficient size to cause any destruction. Location of tumor was equally clear: the relative situations of the cortical centers for the arm, face, and for the movements of speech in the lower two-thirds of the anterior central convolution, and in the posterior part of the third frontal convolution were likened to a reversed L. All these centers were irritated during the attacks, the irritation sometimes beginning in one, sometimes in another. If the tumor pressed upon the lowest posterior part of the second frontal convolution which would lie inside of the L, an irritation radiating from it might reach all three centers equally. The total intermission of the local symptoms might be explained by such a location, since no symptoms were known to occur from injury of this part; the fact that numbness in the hand and face uniformly accompanied the attacks of spasm

seemed to indicate that the areas for these parts coincide with the motor areas.

Another point of interest was the distinctly motor character of the aphasia.

The treatment ordered was, first, inunction of mercury, and, second, iodide of potash daily in divided doses. He had one attack two days after beginning treatment, but since that time he had had no return of the symptoms. Iodide of potash was still being taken.

Dr. Seguin had seen several cases whose symptoms resembled those of the case recorded in Dr. Starr's paper. The prognosis of even non-syphilitic cortical lesions with this symptomatology is not absolutely unfavorable. One of the cases to which he referred was that of a Cuban who came to his clinic about nine years ago. He had never had syphilis, yet he described epileptic attacks of the true cortical kind, such as have been obtained by experiments upon animals during the last few years. The hand would become numb, and then the seat of a vibratory sensation; finally, contraction would occur in the hand, then the face, and almost simultaneously the leg would be affected, and he would lose consciousness. According to his friends' account general convulsions then occurred. He had had quite a number of these seizures; yet examination showed no anæsthesia, no affection of the optic nerve, and, so far as the speaker could recollect, no motor impairment. The patient had received a preparation composed mostly of the bromide of potassium to which a little of the iodide was added. He improved immediately, and four years ago the attacks ceased. Once in a while he has the sensation of wires in the hand, and the hand becomes stiff, but the face is never affected. The case was a beautiful illustration of the localization of a lesion in the center of the hand, the discharge radiating to the face and leg of the same side, then to the opposite side, with loss of consciousness.

The patient had also been the object of the bracelet experiment. He was a powerful man, and had exerted great force, arresting many attacks in this way. The speaker was satisfied that syphilis was absent, while the amount of iodide was too small to explain a cure upon the ground of a syphilitic affection.

Dr. Starr had been much interested in the case which Dr. Seguin had related. He had recently had a case of unilateral convulsions in his office. The patient was a small

boy. The attack commenced in the eyes and face. The eyes turned to the right, then the head turned to the right, then the arm, then the leg, became affected. During the attack the speaker had asked suddenly, "What is your name?" The boy promptly replied, "Arthur," and then relapsed into the convulsion. He supposed that the reply was reflex, as the boy was unconscious at the time, and did not afterward remember the occurrence. He would like the opinion of the members upon the point.

Dr. Dana asked what Dr. Seguin had considered the lesion in his case.

Dr. Seguin had never ventured to surmise beyond the fact that there was a nerve lesion, and that there was no syphilis in the case.

Dr. Starr asked whether in localized convulsion numbness was not the rule.

Dr. Seguin replied that it was; but he did not know that the reason was yet sufficiently established, although von Monakow had associated anæsthesia with lesions of the motor zone.

Dr. Shaw referred to a case seen first four years ago. While at work as a jeweler the patient fell off his bench in a convulsion. The face and the left arm were convulsed; the leg was not affected; sometimes only the side of the face was affected. He had seen many of these attacks limited to the side of the face in his office. The patient complained of numbness in the arm and side of the face, and the speaker felt sure that the tactile sensibility was not as good upon that as upon the other side. The patient denied syphilis. Upon ophthalmic examination the nerves were found pale, and the visual field restricted in its upper part. There was no change until about six months ago, when, without loss of vision, he was found to have choked disk; this had gone on to atrophy, and the man was now blind. There was no paralysis. From the choked disk the speaker had now diagnosticated a tumor, but he referred to the case on account of the anæsthesia and the spasms, and their resemblance to those in Dr. Starr's case.

Dr. Sachs referred to the case of a man who, some years ago, while working upon the capitol at Albany, had fallen some distance, and was found unconscious, but recovered. A few weeks later he developed symptoms which alarmed his friends, and he had now some of the physical and nearly all of the mental signs of cerebral paresis—the irregular

pupils, the facial tremor, the tremor of the tongue, and the deteriorated mentality. The speaker referred to the case because of the traumatic incident, and because every three or four weeks this man had an attack of numbness beginning in the fingers and creeping up the right arm to the face. There never were convulsions, but both the patient and his wife, who is a very intelligent person, say that there is paralysis. After three or four hours both the paresis and the numbness disappear, and he has a very severe headache, lasting one or two days. The speaker thought there was a question of chronic meningitis with encephalitis possibly in this case. It was evidently a cortical affair.

Dr. Dana thought that cortical epilepsy might develop like idiopathic epilepsy without an appreciable lesion. He recalled a case, that of a young man who was kicked in the front of the thigh by a horse. Twitching of the leg developed similar to that of cortical epilepsy. Thrilling and numbness of the arm and face followed. In a year true hemiepileptic attacks, during which he lost consciousness, developed, and upon giving him ether for stretching the nerve he went into the status epilepticus. There was no history of syphilis. Apparently cortical epilepsy was developed just as true idiopathic epilepsy in other cases.—*Phila. Med. News.*

Surgical Clinic of W. T. Briggs, M. D.,

Prof. of Surg. in the Med. Depart. of the University of Nashville and Vanderbilt University.

REPORTED BY R. A. VAUGHT, M. D.

STONE IN THE BLADDER—MEDIO-BILATERAL LITHOTOMY.

THE first patient I present to you this morning is Mr. J. Moon, a resident of the eastern part of this State, who appears before you for relief of a vesical trouble of several years' standing. The symptoms point clearly to the existence of a vesical calculus. He complains of frequent and painful micturition, the pain being especially severe at the end of the act, and persisting for some time afterward. The stream of urine is occasionally checked suddenly, at which time the pain is intense, and only relieved by change of position and determined straining. The urine is cloudy and nearly always contains pus, and occasionally blood.

An uneasy sensation is occasionally felt in the penis, causing the patient to pull at the prepuce with the view of affording relief. All these symptoms are greatly aggravated by any unusual exercise. In order to be assured that these symptoms are due to the presence of a stone in the bladder I passed, a few days since, this instrument, resembling the ordinary silver catheter, except that the beak is very much shorter and sharply curved, and it immediately came in contact with the stone. After the patient has been etherized I will again pass the instrument, and by striking the stone with it will enable you to hear the distinct click made by the contact. The surgeon can also approximate the size of the calculus by drawing the sound over the surface of the stone; or the size can be more certainly ascertained by the use of the lithotrite. In the present case, though the patient has suffered a number of years, I think the stone is only of moderate size. The patient has been in the hospital for several days undergoing a course of preparatory treatment, consisting of mild aperients, buchu-leaves tea, Dover's powders at night, and occasional hip baths.

I propose, this morning, to remove the stone by the mediobilateral method of lithotomy, which operation I have now performed over a hundred times. After the patient is thoroughly anæsthetized, we proceed as follows: The patient being placed in the regular lithotomy position, with the hands and feet fastened firmly together, and with the buttocks drawn close to the end of the table, the grooved staff is passed into the bladder, brought in contact with the stone, and entrusted to an assistant who is directed to draw it well up against the arch of the pubes; at the same time he grasps the scrotum and draws it upward on the staff with the idea of lengthening the membranous portion of the urethra and tightening the perineal integuments. The operator seats himself before the patient and introduces the left index finger into the rectum with the view of protecting that part from injury, and also to still further render the integuments tense.

An incision is made with a sharp-pointed bistoury through the integument and fascia, commencing about three lines above the margin of the anus prolonged upward in the raphe to the extent of an inch and a half. The bistoury, with the edge directed upward, is thrust in at the lower portion of the wound through all the intervening tissue to the staff, its point cutting through the membranous portion

of the urethra. As the knife is withdrawn the incision in the deeper parts is slightly enlarged by cutting upward five or six lines. The beak of this instrument, called the cystotome, is passed into the bladder along the groove of the staff, its blades expanded to the extent of three lines on each side, and withdrawn open so as to divide the tissues laterally half an inch. The finger is then passed into the bladder, the guide withdrawn, and the parts well dilated by rotary movements of the finger. A slender pair of forceps is guided over the finger into the bladder, and the stone being grasped, it is carefully withdrawn by steady traction. The wound and bladder are then thoroughly syringed with tepid water, and the legs brought together.

[The operation was performed as described, very little hæmorrhage occurring. A beautiful specimen of an uric acid calculus, small and spherical, but with its surface thickly studded with sharp spines, each an eighth of an inch in length, and arranged in clusters, the whole specimen resembling the burr of a sweet gum tree, was removed. The color of the stone was dark chocolate, and the weight two drachms. The patient did very well for several days, when a severe hæmorrhage occurred requiring the use of a tampon to control it. Notwithstanding this accident the patient made a rapid recovery, and went home ten days after the operation.]

FRACTURE OF THE LEG.

The next patient, Wm. Green, æt. 40, is a resident of this city. This morning he had the misfortune to be thrown from a mule, the result of which was a fracture of both bones of the left leg. When the leg is manipulated you may readily see that the point of fracture is at the junction of the lower with the middle third. The deformity is only slight. The tibia is broken a little higher up than the fibula, and the line of fracture through the tibia is not very oblique, so that after reduction the fragments are easily maintained in position. The signs of fracture, both special and common, are easily made out in this case, pain, swelling and ecchymosis the common signs, and crepitation, deformity and preternatural mobility the special signs.

The fragments are readily reduced to their proper position by manipulation. There are very many methods in vogue at the present day for treatment of fractures of the leg, but in my opinion there is none that exceeds in ease of appli-

cation, accuracy of adjustment, and the good results that follow the plaster of Paris stirrup-flint, which I will now apply to this patient. A number of pieces of gauze, or cheesecloth, of a width of a little less than half the circumference of the leg, and of a length to extend from just below the knee on one side, under the foot, and to a point on the other side below the knee, are prepared by having dry plaster of Paris rubbed into its meshes, and these five or six pieces sewed together by a single seam in the middle. The fracture having been accurately reduced, and the leg invested in a thin layer of cotton, is ready for the splint. A mixture of plaster of Paris of about the consistence of cream is made; the splint is soaked in this mixture and applied to the leg, extending from below the knee on one side, around and under the foot to a point corresponding on the other side of the leg. The splint is made to adapt itself smoothly to the leg, and is held in place by a roller bandage of gauze or cheesecloth. The limb is held in position until the plaster hardens, when the patient is allowed to get up and with the aid of crutches to walk.

[A week afterward this patient walked into the amphitheater upon his crutches, and the splint being removed, the fracture was found to be doing very well. The splint was reapplied, and the patient directed to return again in three weeks, in order to show the class the progress of the case.]

VARIOCOCELE.

This young man, T. A., of this city, has varicocele, a condition quite common to young men. By varicocele is meant a varicose enlargement of the spermatic veins, due to the engorgement of the veins with blood, the result of long continued pressure of the column of blood. It is more frequently met with on the left than on the right side; a fact due in part to the mode in which the left spermatic vein joins the renal vein, and in part due to the pressure frequently exerted upon it by the sigmoid flexure of the colon. As you may observe, the disease in the patient before you is recognized as a globular swelling in the left side of the scrotum about the size of a small hen egg. The part may be handled without much pain, and presents to the hand a soft, pulpy feeling. The swelling increases upon exertion, or upon standing long in the erect position. The tumor disappears when the patient lies down, but if pressure is made upon the

cord in the inguinal region and the patient resumes the erect position the enlargement returns, a fact which distinguishes this enlargement from that of hernia.

The disease rarely ever, common as it is, gives rise to any serious trouble, though when it assumes the extreme dimensions it sometimes does atrophy of the testical ensues. Varicocele, however, is often the cause of great mental despondency, which frequently calls for operative interference. Pain is slight usually, though sometimes it becomes sharp and lancinating, and radiates to the back, perinæum and thighs. The scrotum becomes long and pendulous, which is increased after exercise, especially in hot weather.

The treatment may be either palliative or radical. By the first is meant such means as may take off the pressure of the long column of blood, which may be accomplished when the varicocele is small, by means of a well-fitting suspensory bandage, supplemented by the exhibition of the cold douche and general tonics. When the enlargement is considerable, threatening by its size to induce atrophy of the gland by pressure, or when it is the source of great mental disquietude, the radical method, or obliteration of the veins, may be resorted to.

This method will be employed in the case now before you on account of the great size of the varicocele, the pain it causes the patient, and the mental worry to which it subjects him. The means we employ are as follows: The patient standing, in order to make the varicocele as large as possible, the vas deferens is separated from the mass of veins, and a needle armed with silver wire is passed through the scrotum behind the veins and between them and the vas deferens, so as to have the veins included by the ligature. Another ligature is similarly introduced about an inch below the first one. The end of each ligature is passed through the holes of an ordinary button and twisted firmly, so as to effectually compress the veins. The veins are then thoroughly divided with a tenotome and the patient put to bed.

[The operation was performed as indicated, and the patient shown to the class about two weeks afterward, with every evidence that the operation had been successful.]—*Nashville Journal of Medicine and Surgery.*

GENKIN in *Wratsch* reports the use of oil of turpentine, in doses of ten drops to a drachm of castor oil, in the treat-

ment of dysentery. There was seldom any disturbance of the urinary organs and the results were better than those obtained by the use of opium.—*New York Medical Journal*.

Microscopy.

The Workroom or Laboratory.

THE physician who uses his microscope spasmodically or semi-occasionally, to gratify a little curiosity or a passing whim, may be content to keep the instrument boxed up in its case, or under a bell-glass upon his office table; but he who regards it as an essential to his daily practice, as necessary as his watch or his clinical thermometer, and to be appealed to as often, and in the same manner as these other guides to diagnosis, must have a regular place for the instrument and its accessories, comfortably and conveniently arranged for work.

This may consist of a separate room—a laboratory containing other apparatus, instruments and appliances for research, or it may be only a table placed in a convenient corner; but whatever and wherever it be, there are certain essentials that must exist in common between the most elaborate and the simplest workplace. As stated in the introductory chapter to *Elementary Technology*, these details depend more upon the taste, ingenuity and purse of the individual than upon the actual exigencies of good, honest work. One man with a few bits of tubing, the odds and ends of old laboratory apparatus, will conduct investigations for which another would require a costly outfit of special instruments.

I do not by this mean to depreciate special and convenient instruments and appliances for research. On the contrary, I appreciate such advantages to the utmost, and envy those who are able to afford them; but I desire to encourage and reassure those who think that they can do no work worthy of the name, simply because they are not able to purchase these costly paraphernalia. In the ensuing series of articles, while I shall mention and frequently describe costly special appliances, I shall in the main confine myself to methods requiring instruments within the reach of every

one, either by purchase or by construction from materials usually at hand.

The first and prime requisite, next to the light (of which I shall speak hereafter) is a good solid table, sufficiently commodious to hold the microscope and accessories, and provided with drawers for the latter when not in use. If the space be large enough to admit of it, the table should be of sufficient size to use as a work-table for preparing and mounting objects, as well as examining them afterward. It should be of such height that one sitting in an ordinary chair may look into the microscope without inclining the tube of the latter more than 30° from the perpendicular.

If daylight be habitually used for work, the table should be placed in front of a commodious window, and at such a distance that the microscope shall not be more than three feet from the sill. The window should, preferably, open toward the north, as the direct rays of the sun are thus at all times avoided. When a northern exposure is not convenient, any other may be made to answer by the arrangement of screens and deflectors.

Good lamplight is always preferable to poor daylight. With the multitude of excellent petroleum burners now in the market, it is difficult, without appearing to use undue partiality, to specify any particular make or form of burner as preferable to all others. The fact is, that no one form of light or burner is equally good for every kind of investigation. Thus, in testing the defining powers of high objectives, the light from a flat wick turned edgewise to the mirror, and allowed to escape through a narrow slit scraped in a smoked chimney, is found to yield the best results. While the management of light is a subject not properly belonging here, I will say that for several years past I have used a modification of the student-lamp, with a flat wick, for all ordinary investigations. Where I require a very powerful light, for any purpose, I use a so-called "electric" (petroleum) lamp giving about 55 or 60 candle power.

Close to the table, and within easy reach, should be a stand, or set of shelves for reagents and chemicals, and another for vessels, tubes, graduates, etc. An ordinary laboratory stand, provided with rings for holding flasks, funnels, etc., may occupy a corner of the table, if the latter is sufficiently commodious.

In addition to the apparatus needed in mounting, and specified in Elementary Technology (such as pipettes, watch

crystals, etc.), the following will be found essential in all microscopical examinations of fluids:

Glass rods for stirring liquids and for transporting very small quantities to the slide.

Glass tubing for making pipettes, etc.

Two or more small beakers for holding urine and other fluids.

A series of conical glasses provided with base or pedestal. Canary glasses or old-fashioned champagne glasses will answer very well for the purpose. These are for the collection of sedimentary deposits.

Small glass funnels. As we will frequently have to deal with very small quantities of fluids, in order to waste as little as possible in filtration, these funnels should range from one and a half to three inches across the top.

Small flasks and test-tubes, and a stand for holding the latter.

A graduated pipette for measuring very small quantities of fluids, and a larger one, provided with a ground-glass stopper and stop-cock, for the accurate measurement of larger quantities.

The usual outfit of slides and cover-glasses. While the slips with ground and polished depressions, formerly much in vogue in the microscopical examination of fluids, are sometimes useful, I now rarely employ them. In the examination of liquids with high-power dry objectives, I use the plain slide with a very thin cover-glass, the latter being lightly laid upon a minute drop of the fluid and allowed to settle to the slide of its own weight, thus leaving a very thin layer of fluid spread out between it and the slip. If a deeper layer is wanted, I use a slip upon which I have spun (and let dry) a ring of zinc cement. If an immersion lens is to be employed, instead of a zinc cement ring, I use one made of wax or some other sticky material. The slip is slightly warmed, put upon a turn-table, and while revolving, touched with a bit of wax. This leaves a cell wall which may be made as deep or as shallow as necessary, and which will hold the cover-glass at one or more points sufficiently firmly to admit of the employment of any immersion fluid.

The special chemical reagents necessary in different examinations will be given under the appropriate heading when the examination is taken up. The chemicals liable to be occasionally needed in almost any examination are as fol-

lows: distilled water, benzol, chloroform, ether, glycerin; nitric, sulphuric, hydrochloric, acetic, chromic, picric and gallic acids; aqua ammoniæ, liquor potassæ and liquor sodæ chlorinatæ; solutions of nitrate of silver, acetate of lead, iodide of potassium, iodo-iodide (iodine in iodide of potassium), and of chloride of sodium; tinctures of chloride of iron, and of iodine.

These chemicals should be kept in ground-glass stoppered vials, and conveniently arranged.—*St. Louis Medical and Surgical Journal*.

Gleanings.

ON THE TREATMENT OF NASAL DIPHTHERIA.—Reiersen, of Copenhagen, gives an account of the treatment lately employed, with good results, in the Copenhagen Fever Hospital in cases of nasal diphtheria. The serious character of this form of diphtheria having been experienced (the author thinks that the pituitary membrane absorbs the micrococci of diphtheria much more quickly than any other mucous membrane, thus giving rise to serious general symptoms) and the usual treatment, by which either the false membranes were removed with forceps or antiseptic liquids injected in the nose, having proved unsatisfactory in results, or impossible in practice, the treatment by medicated bougies has been adopted. They are made according to the following formula:

Cocain. muriat.,	. . . . .	$\frac{1}{6}$ to $\frac{1}{5}$ gr.
Boric acid,	. . . . .	15 grs.
Amyli,	. . . . .
Gummi arab pulv.,	. . . . .	aa 1 $\frac{1}{2}$ grs.
Glycerini,	. . . . .	quantum satis.

The length of the bougie for grown-up persons and big children is three and a half inches, the diameter one-fifth of an inch; the same diameter will do for quite small children, the length being only a little shorter, but these bougies contain only $\frac{1}{12}$ grain cocaine (or even less for quite small children) and 10 grains boric acid each. They ought to be stiff and pointed at one end. They are introduced easily, and cause hardly any pain or bleeding; one is applied to each inferior meatus, and ought to reach as far as the naso-

pharynx. When they are melted the passage through the nose is often re-established at once, and the mucus and the false membranes are now easily removed by syringing through the nose; but, if necessary, the introduction of the bougies is repeated, one hour being the usual time for them to melt thoroughly. The cocaine acts partly by reducing the swelling, and partly by decreasing the irritation caused by the boric acid, which acts like a permanent antiseptic irrigation.—*Journal of Laryngology*.

SCOPOLINE AS A SUBSTITUTE FOR ATROPINE.—Dr. H. Percy Dunn, writes, in the *British Medical Journal*, that the new mydriatic, scopoline, introduced by Peral Thurey, is a useful drug. For some time he has used scopoline at the West London Hospital, not for the purpose of testing its qualities as a mydriatic, but as a drug to supersede atropine in the treatment of keratitis, corneal ulcers and iritis. He has found that in the case of troublesome corneal ulcers which had been treated respectively with both atropine and eserine without success, rapid improvement followed the instillation of scopoline. Especially was this good effect shown in cases of severe interstitial keratitis, in which atropine had been previously employed. Again, in rheumatic iritis the use of scopoline was obviously effective in reducing the pain and injection of the globe. Upon no occasion has he seen any conjunctival or other irritation set up by its use, and he has found one grain to the ounce a sufficiently strong solution for all purposes.—*New York Medical Record*.

THE PHYSIOLOGICAL ACTION OF VANILLIN.—Grassett ("Arch. de pharm.," August, 1886, "*Ctrlbl. f. d. ges. Therap.*," January, 1887,) has found vanillin fatal to frogs in doses of from three-quarters to nine-tenths of a grain, but has not ascertained that there is a toxic dose for the higher animals. In frogs, it acts chiefly on the spinal cord, causing convulsions followed by a depressing effect on the motor nerves, those of sensation being unaffected; its action, therefore, being that of strychnine, but much milder. It seems to delay putrefactive fermentation. It is antagonized by chloral. Therapeutically, it may be used, in doses of three-quarters of a grain, as an aid to digestion, especially in atonic and putrefactive dyspepsia, or as a corrigent of drugs which, like chloral, are not well borne by the stomach; also, in doses of from three to four grains, in mucilage, as an excitomotor.—*New York Medical Journal*.

Book Notices

THE PRINCIPLES AND PRACTICE OF OPERATIVE SURGERY. By Stephen Smith, A .M., M. D., Professor of Clinical Surgery in the University of the City of New York; Surgeon to Bellevue and St. Vincent's Hospital, New York, etc. New and thoroughly Revised Edition. Illustrated with 1005 Wood-cuts. Large 8vo. Pp. 877. Philadelphia: Lea Brothers & Co. Cincinnati: R. Clarke & Co.

This work was first published in 1879, and although there have been frequently large issues since that date—eight in number, each being designated as an edition—no change whatever was made in the text during that time. This is, therefore, the second and only revised edition. Within the period 1879—86, says the author, the principles and practice of operative surgery have undergone so complete a revolution, that the term, “the new surgery,” applied to the present practice, is not inappropriate. Not only have the principles, he states, governing the treatment of wounds, been so modified as to render operations, formerly very fatal, safe and expedient; but the field has been so extended as to embrace a wide range of successful procedures for the cure of injuries and diseases hitherto regarded and treated as necessarily incurable. To render the treatise a proper exponent of the present state of surgical art has required, not only a complete revision of the former text, but such additions as would comprise the new methods and operations. This the author has carefully performed, and he has the satisfaction of believing that the work now embraces the latest advances in this department of knowledge, and that the details of the most approved antiseptic methods have been placed in such a light that they may be easily mastered and utilized by every practitioner.

The first chapter of the work discusses the legal responsibilities of the surgeon, containing much upon the subject that is highly interesting and useful. It is stated, that “whoever undertakes to practice any art or profession assumes an obligation, both civil and professional, which, though implied, has all the force and validity of a formal contract. In legal construction, this obligation requires that every practitioner of operative surgery shall (1) possess that

degree of knowledge, skill and experience which is ordinarily possessed by the professors of the same art or science; and which is regarded by those conversant with that employment as necessary and sufficient to qualify him to engage in its practice; (2) that he use reasonable and ordinary care in the exercise of his skill and the application of his knowledge to accomplish the purpose for which he was employed; (3) that he use his best judgment."

Surgery has made vast progress in the success attained by it by the use of antiseptics in operations. Many operations which, formerly, were so fatal in results that they were only had recourse to as a *dernier* resort, are now, by means of antiseptics, robbed of their terrors, and where three out of five undergoing them died, there are now not that many deaths following in a hundred. Not long ago—just previous to the introduction of antiseptics in surgery—ovariotomy was regarded as one of the most fatal of surgical operations, but so little mortality attends upon its performance, at this time, that it has almost ceased to be considered dangerous. The tenth chapter of the work is devoted to the "Application of the Principles of Antiseptic Surgery," explaining the whole subject in a very interesting and practical manner. Every detail in the use of antiseptics in operations and in applying them in the treatment of wounds is fully set forth. Among the antiseptics recommended in dressing wounds are carbolic acid, bi-chlor. mercury, iodoform, salicylic acid, boracic acid, salicylic acid cream, etc. As external dressings are mentioned iodoform gauze, carbolic gauze, absorbent cotton, gutta-percha, etc. The antiseptic solutions employed in irrigation, during an operation, are bi-chlor. mercury varying in strength from 1-500 to 1-10,000, and carbolic acid varying from 1-20 to 1-50. The towels are saturated in a solution of bi-chlor. mercury 1-500, and the sponges are taken from a jar of carbolic acid solution. But our outline is of the meagerest character. A perusal of the whole chapter on antiseptics will well repay the practitioner.

In conclusion, we will state that we have never come across a work upon surgery that we have considered better adapted to the wants of the medical man and the student. It is replete with information of the most valuable, practical character, of a kind just fitted to the needs of the every-day practitioner. Having been thoroughly revised and partly rewritten, it has the merit of being fully abreast of the times in presenting the latest accepted views in all surgical

matters. We will be surprised if the second edition does not meet with a very great demand. It certainly deserves such a recognition.

CLINICAL MANUAL FOR THE STUDY OF MEDICAL CASES.

Edited by James Finlayson, M. D., Physician and Lecturer on Clinical Medicine in the Glasgow Western Infirmary; Physician to the Glasgow Hospital for Sick Children, etc. Second Edition, Revised and Enlarged. With 158 Illustrations. Cloth. 12mo. Pp. 683. Price, \$2.50. Philadelphia: Lea Brothers & Co. Cincinnati: R. Clarke & Co.

This is a work which every physician, young and old, will find most useful. Its object is to aid in making diagnoses, and, consequently, it describes and treats of all the various symptoms which are exhibited in the progress of disease—their importance, indications, etc.

Of course, the pulse and temperature are given attention; and in considering them the clinical thermometer and sphygmograph are described. By the use of these instruments great advance has been made in observing and studying disease. They have proven to be instruments of precision, which have resulted in an accuracy in noting morbid phenomena before unknown. By means of them physicians can now, oftentimes, detect complications many hours before they are manifested by the usual signs; and, not unfrequently, are able to ward off or modify the effects of dangerous symptoms which they have been able to foresee the advent of.

Among the very many symptoms discussed in the work and their character and importance set forth, are cough, disordered respiration, vertigo, fits, aphasia, insomnia, vomiting, constipation, diarrhea, presence or absence of pain, ascites, urinary deposits, diabetes, abuminuria, significance of electrical reactions, electrical instruments in diagnosis, etc. But an enumeration of these subjects gives but an imperfect idea of the scope of the work.

The preface states that it is the design of the work to afford such assistance as students, actually working at clinical medicine, might seem to require; and the hope is expressed that it may continue to be useful to them in their clinical work, even after they have completed their course at the schools. We feel sure that any practitioner who has

the work upon his shelves, whether he has just completed his college course or whether he has been engaged in active practice for a long time, will constantly have occasion to consult it. Although comparatively a small work, it is replete with information of the most practical character upon all subjects pertaining to diagnosis.

Besides Dr. James Finlayson, who is not only a contributor to the work, but is the editor of it, the following physicians are contributors: Drs. W. T. Gardner, Alex. Robinson, Joseph Coats, Wm. Stephenson, Samson Gemmell. In preparing the second edition, every portion has been revised by the original contributors and by the editor himself. Large sections, here and there, have been entirely rewritten, and the number of illustrations increased from 85 to 160. The plan of the work, however, remains unchanged.

DISEASES OF THE JOINTS. By Howard Marsh, F.R.C.S., Senior Assistant Surgeon to and Lecturer on Anatomy at St. Bartholomew's Hospital; Senior Surgeon to the Hospital for Sick Children, etc. With 64 Illustrations and a Colored Plate. 16mo. Pp. 461. Cloth. Philadelphia: Lea Brothers & Co. Cincinnati: R. Clarke & Co.

The science and art of Surgery has, of late years, reached such an extended stage of development that it has become necessary, really, to treat each department by itself. And with some of the departments it is difficult to do justice to a separate one in a single volume. At the present time we find works devoted exclusively to Surgical Anatomy; Surgical Pathology; Fractures and Dislocations; Operative Surgery; Venereal Diseases, etc.

The small work before us is devoted to the consideration of the diseases of the joints. Though a person may not be a surgeon, yet the fact of meeting in large cities daily multitudes of crippled persons who are compelled to go through life lame, leaning upon crutches or canes, is evidence that diseased joints constitute not a few of mortal ailments. When it is considered how great is the calamity entailed by permanent lameness, a conception will be formed of the importance of articular diseases; and how essential it is that those who profess to treat them should understand them. Dr. Marsh's work strikes us, on examination, to be a work

that should be found in the library of every physician. The matter contained in it is of a very practical character, presenting such methods of treatment as have been shown to be the best by the experience of the most eminent surgeons of the present time.

Although pathology must always form the basis of surgery, yet, in consequence of the size of the work, and the desire to make it as practical as possible, only such reference is made to it as was found to be necessary to give a proper notion of the character of the diseases described. It has been the purpose of the author to make treatment the main subject of the volume, and we think he has been highly successful in affording to students and practitioners a knowledge of the best manner to treat, with reference to curing, a most difficult class of diseases.

A COMPEND OF ELECTRICITY AND ITS MEDICAL AND SURGICAL USES. By Charles F. Mason, Assistant Surgeon U. S. Army. With an Introduction by Charles H. May, M.D., Instructor in Ophthalmology, New York Polyclinic. 12mo. Pp. 108. Cloth. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co. 1887. Price, \$1.00.

The publishers of this little work have begun the publication of a series of medical works which are to be short, concise compends for the medical student and practitioner, termed *Medical Briefs*. The one before us is the third one of the series.

This is just the work needed by a physician who has obtained a battery, knowing that electricity is now, more than ever before, considered a most important therapeutic agent. The first chapter being devoted to the principles of electro-physics, describes magnetism and magnets, and, taking up electricity, defines it, and then describes briefly, but clearly, all the various forms of electricity, as static or frictional electricity; current or dynamic electricity; faradism or induced electricity, etc. In these chapters it is not omitted to explain the various currents—primary, secondary—armatures, batteries, induction, insulators, etc. In brief, all the elementary principles pertaining to electricity and magnetism, which are necessary to be understood in order to use these agents intelligently in the treatment of disease, are very plainly set forth in this little work. But while

every subject is made perfectly clear, yet the descriptions are so concise that every point is fully comprehended in the briefest time. We are confident, that so well is the work adapted to their wants, advanced medical students and young practitioners will eagerly seek for it.

We should mention that the work not only explains the various kinds of currents, and electricity and magnetism as physical forces, also the accessory apparatus in making use of these forces as therapeutic agents, but it also describes electro-physiology, electro-diagnosis, electro-therapeutics, electricity in medicine and surgery, etc.

Editorial.

DR. W. M. LOGAN'S INTRA-PULMONIC AND BACILLIDE MEDICATOR.—It has been said that novelties in medicine will not cease to entertain the profession so long as men reach after successful results, which means, we presume, that novelties in medicine will never cease, for so long as physicians are filled with a love of their profession, and are prompted to investigation by desire to advance science, they will continue to reach after "successful results." M. Bergeon, it is stated, becoming imbued with the idea that tuberculosis owes its existence to the bacillus, began experimenting with various antiseptic agents with the view of finding an agent which would destroy the bacillus tuberculosis and would, at the same time, be innocuous to the system. He found that sulphuretted hydrogen and carbonic acid gas were powerful microbicides, but these agents injected into the general circulation act as powerful poisons. M. Bergeon, therefore, proposes to inject these gases into the rectum, for he has ascertained that from it they are rapidly absorbed into the venous circulation, and from thence they are entirely eliminated by the lungs. He supposes that the gases while in process of elimination will come in contact with the tuberculous bacilli in the lungs and destroy them.

It occurs to us that M. Bergeon's method of bringing gases in contact with the specific bacilli which are said to bring about consumption, for the purpose of destroying them, is too indirect to be relied upon. He has already

discovered that the injection of sulphuretted hydrogen into the rectum and intestines is not tolerated by these organs, and, consequently he has been compelled to limit himself to carbonic acid gas. We do not think it will be long until he will abandon the latter. Carbonic acid gas will probably destroy bacilli when brought in contact with them directly and in considerable quantities, but they will be found to be too tenacious of life to be killed by an amount which reaches them through the process of absorption and elimination.

In the November number, 1886, of the *MEDICAL NEWS*, Dr. W. M. Logan, of Cincinnati, described an apparatus, invented by himself, which he calls the "Intra-Pulmonic and Bacillide Medicator," which, we think, has a number of interesting features, and is worthy of attentive consideration. Dr. Logan is a gentleman of a logical mind, possessing very considerable scientific ability, and is not a man who would be apt to become enthusiastic with fanciful ideas and novel notions; but scans a subject deeply and is slow in acknowledging merits. To the treatment of diseases of the lungs he has given special attention for many years; and, consequently, would not be apt to indorse any method in regard to which he did not have strong evidence of great probability of its proving successful.

It will be seen, by referring to Dr. Logan's article, that he proposes, in the treatment of certain diseases of the lungs attended with ulcerations and cavities, the use of an apparatus by which a bacillide or other topical remedy will be brought in contact with the diseased part—an ulceration or cavity—by an operative procedure through the chest-wall overlying the part. Only a few years ago it was considered highly dangerous to open the abdominal cavity for the purpose of investigating the condition of a diseased or injured organ within, or to penetrate the parieties of the chest for the purpose of medication, but laparotomy at the present time, is performed every day without hesitation, and injections have been made into the lungs repeatedly of liquids without harming, if not with marked beneficial results.

Dr. Logan's apparatus consists of a fine canulated, gold, iridium-pointed needle, three and a half inches long, perforated with seven diverging capillary openings on one side, radiating equally in a row, occupying slightly less than one-fourth of an inch in length, beginning as close as possible to the point. Adjusting this tube as a tip to an ordinary Richardson's atomizer, connected by a strong hose with an

air receiver containing an atmospheric pressure of fifty pounds or more to the square inch, and introduced at a safe point through the chest wall, as close as possible to the floor of the cavity or abscess to be treated, the solution in the fluid holder may be thrown in a very fine fan-shaped spray, longitudinally in all directions (to and fro simultaneously), upward to bathe the top, front and back, while, by a slight rotary motion, the sides of the vomica would receive thorough treatment, the fluid accumulating from the spray on the walls above flowing down to medicate its base.

It will thus be perceived from this description of Dr. Logan's apparatus and its method of operation, which we have copied from his article, that he proposes to topically treat a cavity in the lungs or an ulceration by means of a spray which has been previously medicated. By means of a spray every part of a cavity will be touched by the spray, and not merely the lower part, as would occur if a fluid should be injected by means of a syringe, which would naturally gravitate to the bottom of a cavity. A fluid broken up into molecules by an atomizer through a great atmospheric pressure would be as efficient, or even more so, as a gas in coming in contact with an entire surface.

There is scarcely any antiseptic which might not be employed in the manner as suggested by means of Dr. Logan's apparatus. It would only be necessary that it be soluble, and we believe they all are. A bacillide thus used would be far more effectual than carbonic acid gas injected into the rectum as proposed by M. Bergeon.

It seems to be accepted by very many that Koch's bacilli are the cause of phthisis pulmonalis. If such be the case the rational treatment of the disease is the employment of bacillides for the purpose of destroying the bacilli. The use of codliver oil and other medicines, under the circumstances, would be very irrational, being founded upon no scientific basis. Such medicines could only prolong life by strengthening the vital powers for a time—at the beginning of the disease—not possessing any properties which would tend in the least to remove the cause of the affection—ability to destroy the bacilli. Codliver oil, as has been proven by Professor Dalton, when taken into the stomach, passes into the intestines, where it becomes emulsified by the pancreatic juice, is then absorbed by the lacteals, passes into the thoracic duct, and is discharged into the subclavian vein

where it is mixed with, and lost in, the blood. It is at the best but an oily food, possessing no medicinal properties whatever.

We hope those who are in charge of consumption hospitals and have the facilities for experimenting with new methods of treatment having seemingly a scientific basis, will try the mode of treatment suggested by Dr. Logan. We feel sure that it will be found possessing much merit.

CHLOROFORM IN LABOR.—We learn from an exchange that Dr. Fordyce Barker read a paper at the last meeting of the State Medical Society of New York, entitled "Is the Danger from Post-Partum Hemorrhage Increased by the Use of Anesthetics during Parturition."

He stated, we understand, that he has attended a number of patients who in previous confinements had alarming post-partum hemorrhages, though taking no anesthetic, who have escaped this accident in labors in which chloroform was used. A peculiar idiosyncrasy, or former tendency to hemorrhage or extreme feebleness, the reasons given for withholding an anesthetic in former labors, are the very strongest indications for the careful administration of chloroform. In private practice he has only had one case of post-partum hemorrhage, and, in this case, no anesthetic was used, as the child was born before he had time to make an examination. Dr. Barker is convinced that the prevalent opinion that chloroform is dangerous for any woman with heart disease, is erroneous. We must say, however, for ourself, that we would fear to administer either chloroform or ether in a case of disease of the heart, whether the patient was suffering with the pains of labor or was about to undergo a surgical operation. But Dr. Barker relates that he has had a number of cases of labor dangerously complicated with organic heart troubles, which terminated favorably, as he thinks, solely from the use of chloroform. In an experience of thirty-seven years, using chloroform in several thousand cases, he has never, in a single case, had reason to regret its use. Dr. Barker must have begun the use of chloroform in labor soon after its introduction as an anesthetic in surgery.

Dr. Barker has never been able to find any statistical evidence in proof of the statement constantly made in obstetric literature that anesthetics increase the danger of post-partum hemorrhage. He firmly believes that no woman under the

care of a watchful, prudent, and competent obstetrician ever ought to die from post-partum hemorrhage, due solely to uterine inertia or ataxy. He states that uterine inertia, the fountain of post-partum hemorrhage, is often but another name for uterine exhaustion, and this is much less liable to occur when the nerve force and vital powers have been saved by the use of an anesthetic.

While Dr. Barker admits that chloroform, in some cases, prolongs labor, and that uterine exhaustion often is the result of prolonged labor, he is satisfied this apparent objection is more than counter-balanced by the good obtained by its use. As the result of his experience, he asserts that chloroform shortens labor in a greater proportion of cases than it retards it. He is certain that it shortens it in all those cases where the pains are diminished or suspended by extreme sensitiveness and fear of pain, by vivid moral impressions of hysteria, or by pains resulting from the coincidence of some malady, either existing antecedent to, or appearing during labor, such as rheumatism of the uterus or other muscular tissues, or sharp pains in the back or abdomen distinct from the pains from uterine contractions, gripings in the intestines, or the cramps which are occasionally produced by the pressure of the child's head on the sacral nerves; and, finally, in all those cases where inefficient uterine action results from loss of sleep and extreme exhaustion from a prolonged first stage; and in many cases where the labor is retarded by rigidity of the os uteri or perineum.

Dr. Barker prefers chloroform to ether as an anesthetic in labor. He has not used the latter, in any case, he says, since 1850. His paper will undoubtedly be much sought for by members of the profession. From the report we have seen in regard to it, we think Dr. Barker will be able to prove a clear claim to the title of the Father of the Use of Anesthetics in Labor, for we do not believe that any one had ever used an anesthetic in a case of parturition before thirty-seven years ago. We will be glad to be corrected if we are wrong.

QUACK ADVERTISEMENTS IN RELIGIOUS JOURNALS.—Medicine has no quarrel with theology. The physician and the religious teacher have their respective spheres, and neither conflicts with the other. Once, indeed, their functions

were united, and he who cared for the soul also had charge of the body; but the separation of the offices has been a necessary result of the progress of knowledge. While each has his respective duties, they can often be mutually helpful, and any alienation between them is to be deprecated. Yet how often is occasion given for such antagonism, by clerical indorsement of quacks and of quackery! It is right, however, that we should here say that many years' observation has led us to believe that it is much rarer to find a Roman Catholic priest supporting irregular systems of medicine, or recommending nostrums, than it is to find a Protestant clergyman doing so. We believe this statement will be confirmed by others, no matter how it may be explained.

It is proper, too, that attention should be called to the readiness with which quack advertisements are admitted into religious journals. We have before us a weekly publication of one of the most intelligent and strongest Protestant denominations, and in this journal, which is doubtless read by thousands throughout the United States, there are between fifteen and twenty quack advertisements. Some of them are deceptively inserted with reading matter, as if part of it; thus "almost miraculous" cures by a drug which most physicians know to have very slight therapeutic power, precedes a news item, and that item is followed by the advertisement of a "syrup" for teething children which depends chiefly for its power upon opium, a remedy which should not be employed without a physician's advice; it is stated that this medicine "softens the gums," an assertion which any man of sufficient intelligence to conduct a religious journal ought to know is a lie. Then follows a statement in regard to a remedy for consumption, "thousands of hopeless cases have been permanently cured," and this every intelligent man and woman in the land knows is false; yet there are hundreds of the poor victims of the disease, who are thus tempted into spending their last dollar to secure such a sovereign remedy. Then there is another preparation, a small particle of which is placed in each nostril, which, among other marvelous results, cures "hay-fever." We find, too, that some one advertises a certain cure for "even the worst cases of epilepsy," another who, to the disgrace of the clerical profession, or as a trick to catch the unwary, puts "Reverend" before his name, promises to cure any case of catarrh or bronchitis, "no

matter how desperate." and then, as if to complete a triad of falsehoods, these two advertisements are followed by one in which "a positive and speedy cure" of goitre is promised.

But we desist from the sickening review of this prostitution of the religious press to falsehood and fraud. No matter how earnestly and eloquently a journal may plead for honesty and truth, if its advertising pages are occupied by such mischievous statements, its influence for good is sadly weakened. The editor, we will suppose, says "Let us pray," and some of the advertisers respond, "Let us pray," and he lets them! A clean religious journal, one from which all quack advertisements are excluded, is sadly needed, and the need ought not to continue long.—*Philadelphia Medical News*.

SANITARY CONVENTION. — We have received from our friend, Dr. John D. Jones, a member of the *Ohio State Board of Health*, a circular announcing that arrangements are about completed by the State Board of Health, in conjunction with a committee of citizens of Warren, O., to hold a *Sanitary Convention* at that place on Wednesday and Thursday, March 30 and 31, 1887.

The object of this Convention is to bring together citizens of the State, especially of the eastern part, for the presentation of facts, the comparison of views and the discussion of matters pertaining to the conservation of public health. Topics of great interest to the people will be presented by men who have given thoughtful and practical attention to sanitary questions.

Physicians and all persons interested in sanitary subjects are cordially invited to be present and participate in the work of the Convention.

Among the subjects that are expected to be brought before the Convention for discussion are, Cleanliness; Hygienic Eating and Drinking; Sedentariness in Schools; Rural Sanitation; The Recurrence of Typhoid Fever as a Limited Epidemic; Disposal of Dangerous Waste Products; Pollution of Our Sources of Water Supply; The Popular View of Sanitation; Boards of Health; Standards of Health; The Protective Power of Vaccination; Disease-Breeding Cellars; Heating and Ventilation, Sewerage and Plumbing of Dwellings; Defective Sight Developed during School Life—Its Cause and Remedy; Principles of Warming and

Ventilation as Applied to Our Common Schools; Adulteration of Food.

Papers of general sanitary importance will be selected for publication with the proceedings of the Convention; and it is the design of the State Board of Health that some, at least, of the papers may be embodied in its annual report.

An address of welcome will be made by the Mayor of Warren, Columbus Ward, Esq. A response will be delivered by T. Clarke Miller, M.D., of Massillon, O., the President of the State Board of Health.

Dr. J. D. Jones, of Cincinnati, who, as a member of the State Board of Health of Ohio, represents the southern portion of the State upon the Board, is taking an active interest in the Convention, and if there are not a great many present from his part of the State it will not be his fault. Dr. Jones is President of the "Ohio State Society for the Prevention of Cruelty to Children and Animals," and is regarded as one of the most efficient executive officers among the presidents of these organizations in this country. Recent reports show that the Ohio Society is doing more for the relief of the suffering of the helpless than any of the other similar societies in the United States.

THE RUSH MONUMENT.—In speaking of the Rush Monument the *Medical Register* makes the following correct remarks:

"As a nation we are too prone to neglect our heroes and great men, letting them live in our hearts in grateful memory, rather than to rear the sculptured marble or molded bronze, to live after we are gone and our memories forgotten. It is true that we are a young country; that we have been too busy in developing our resources to indulge in the luxury of the arts; but it is only meet that our great and noble men should, like the great and noble of other people and nations, have suitable monuments erected to their memory. In the list of great American physicians, to the memory of only a very few have we erected monuments, not because we have not had those within our ranks who, by grand and heroic deeds in and out of the profession, have merited this honor, but rather to the indifference of the profession at large. At the annual meeting of the American Medical Association, which was held at Washington, D. C., in 1884, a committee was appointed to collect funds for the erection of a suitable monument to the memory of Dr. Ben-

jamin Rush, to cost \$40,000, the funds to be raised by small subscriptions, ranging from a dollar up. Dr. Albert L. Gihon, of the United States Navy, was appointed chairman; Dr. George H. Rohe, of Baltimore, secretary, and Dr. Joseph M. Toner, of Washington, treasurer. Since that time they have been actively engaged in soliciting subscriptions through the various state members of the committee, of which there is one to represent every State and Territory. We would call the attention of the profession to the necessity of aiding this great undertaking, which can only reflect credit on us all. Dr. Rush was 'a great physician, a teacher, a philanthropist, investigator in medicine, an excellent lecturer and accomplished writer. He was also a fearless patriot, a founder of the republic, a member of the Continental Congress, and one of the signers of the Declaration of Independence. He was the first Surgeon-General of the Army of the Revolution for the Middle Department and Physician-General of the military hospitals, and a member of the convention which adopted the Federal Constitution of the United States.'

"We hope the response will be prompt and liberal, so that at the next meeting of the American Medical Association the committee will report that all of the funds have been raised, and the monument will be finished and unveiled before the meeting in 1888."

PATHOLOGY AND TREATMENT OF EPILEPSY.—From a report of its proceedings, we learn that Dr. Wm. H. Thomson recently read a paper on this subject before the New York Academy of Medicine. He said that ever since he had become satisfied in his own mind that the lesion of epilepsy is to be found in the sensory, rather than the motor centers, he had conducted his treatment in accordance with this view, and as a result he had grown less skeptical than formerly of the advantages of treatment in this disease. The first things he aims at is the improvement of nerve-nutrition, and by far the best agent for this purpose at our command is cod-liver oil. It increases, he says, the number of blood-corpuscles more rapidly than iron, and has a greater effect upon nutrition than any other remedy. It is particularly indicated in malnutrition of the nervous system, because the nerve-texture is normally richer in blood-fat than any other tissue of the body. Hence it is to be regarded as the great prophylactic in all neurotic families. In

epilepsy he never fails to prescribe it as regularly as he does in phthisis. Another advantage that it has is, that it counteracts in a very successful manner the debilitating effects of the bromides. Phosphorus he had also found of much service in improving nerve-nutrition, and he usually employed it in the form of the officinal syrup of the hypophosphites, with the addition of one-fifth part of dilute phosphoric acid. He excluded from the diet all butcher meat for a period of two years, though he allowed poultry and fish. He considers that an animal diet predisposes to convulsions in proportion to the quantity in which it is used.

He places great confidence in the use of bromides. He uses belladonna or zinc oxide in all cases in which there are disturbances of the alimentary canal. When there is reflex irritability he uses chlorat-hydrate or Hoffman's anodyne in addition to the bromides. Digitalis he employs in all cases characterized by vascular disturbance, or where there is an involuntary discharge of urine during the epileptic attack.

ELECTRICITY AND THE MICROSCOPE.—Says Dr. Charles H. May in an Introduction to a little work upon Electricity: "With a daily enlarging knowledge and a constantly widening field of applicability, no physician can expect to compete with his brethren in therapeutic skill, who fails to secure at least an average acquaintance with the science of Electricity."

In the last thirty years the subjects which a physician is expected to study and understand in order to maintain his position as a scientific medical man, have largely increased. Electricity and the microscope, of course, were known previous to thirty years ago, but their use by physicians was very limited. But how is it now? The medical man who does not almost daily employ electricity as a means of treatment is considered as depriving his patients of one of the most efficient therapeutic agents, and the physician who does not constantly use a microscope is considered incompetent, in many instances, to make a correct diagnosis. As is said by Dr. May in respect to electricity, so it can be said in regard to the microscope, that a physician who does not employ it can not expect to compete with his professional brethren.

HANDBOOK OF PHARMACY AND THERAPEUTICS.—We have received a neat little work in flexible covers, having 188 pages, 16mo, compiled by James E. Lilly, of Indianapolis. It has been the aim, it is said, to furnish the busy practitioner a reliable means of ready reference, at once concise, systematic and authoritative, to which he may refer with confidence in case of doubt. Young members of the profession will find in it many valuable suggestions. The authorities from which it is compiled are the United States Dispensatory, National Dispensatory, Ringer's Handbook of Therapeutics, Bartholow's Materia Medica and Therapeutics, etc.

It can be conveniently carried in the pocket to be consulted as to dose; the formula of various preparations, officinal and non-officinal; properties of medicines; indications, etc. It contains a full list of fluid extracts, pills, elixirs, etc., besides posological tables, poisons and antidotes, metric system of weights and measures, suggestions in examining urine, rates of pulse of different ages, definitions of terms denoting properties of remedial agents, directions in writing prescriptions, index of diseases and their remedies, etc. In fact, the work will be found to contain a most surprising amount of most useful information, which can only be found scattered through many volumes.

THE AMERICAN SYSTEM OF GYNECOLOGY, which for some time past has figured among the more important announcements of Messrs. Lea Brothers & Co., of Philadelphia, we are glad to learn is well through the press, and may be expected shortly.

Numbering among its contributors such prominent authorities as Professors Barker, Battey, Engelmann, Garrigues, Goodell, Reeves, Jackson, Lusk, Mundé, Reamy, Thomas, Van de Warker, etc., it will certainly present a thoroughly satisfactory and complete statement of the science in its most recent aspects, and we feel justified in congratulating the profession that what has been peculiarly an American specialty is about to receive from American hands the literary tribute due to it.

AT a recent meeting of the *Société de Thérapeutique*, there was a discussion on the value of liquid vaseline, introduced by Meunier, of Lyons, as a medium for the hypodermatic injection of such irritating bodies as iodoform, iodol,

thymol, menthol, etc., which are very apt to produce abscess. Dujardin-Beaumetz stated that he had found this plan very advantageous, particularly in using eucalyptol and iodoform. The injection is not painful, and it does not cause local trouble.

A NEW MEDICAL JOURNAL.—By some oversight we neglected to mention in a previous issue that a new medical journal has been established at Louisville, Ky., called the *Southwestern Medical Gazette*, edited by M. S. Coomes, A.M., M.D., and J. B. Marvin, B.S., M.D. It began with the year, and we are in receipt of the third number.

The *Gazette* issues thirty-two pages in each number. It is printed on very good paper with good type. It presents a very creditable appearance—being edited with ability by its editors. We wish it prosperity and long life, and will place it on our exchange list with much pleasure.

A FORMULA BY GERMAIN SEE for the relief of the pain after taking food, in patients with cancer of the stomach, is as follows:

R. Tinct. Conii,
 Tinct. Hyoscyami,
 Ol. Anisi, aa ʒij.
 Tinct. Gentianæ, ʒj.

S.—Ten to thirty drops after meals.

AN EASY LABOR.—Dr. S. C. Bridgwater, of Dixon Springs, Tenn., writes that not long ago a negro woman was walking along one of the streets of that town, when suddenly the labor pains began, and, before she could get out of town, she gave birth to a large, healthy child. She picked up the baby, and carried it in her apron about half a mile to her home. She had no medical attendance during or after the labor, and both mother and child did well.—*Medical Record*.

A CONGRESSIONAL APPROPRIATION.—The Congress of the United States, through whose action millions of dollars are yearly misappropriated, in the Sundry Civil Appropriation Bill, has granted an appropriation of \$10,000 toward defraying the expense incident to the meeting of the International Medical Congress at Washington this autumn. An appropriation of \$35,000 was asked for.

THE CINCINNATI MEDICAL NEWS.

VOL. XX. No. 232.
Old Series.

APRIL, 1887.

VOL. XVI. No. 4.
New Series.

Original Contributions.

The Bacillus Tuberculosis.

A Discussion upon a Paper by Dr. Formad before the Philadelphia County Medical Society.

DR. SHAKESPEARE regretted his inability to be present to open the discussion in accordance with the request of the President, and thanked the Society for this opportunity of expressing his views. He had been much interested by the opinions and by the review of the status of the tuberculosis question presented by the author. There were, however, very many points assumed as demonstrated, and positive statements advanced in the elaboration of Dr. Formad's paper, which Dr. Shakespeare believed to be without sufficient foundation. But he would not, at this time, enter into a general criticism. He preferred to await the detailed observations which the author promised shall be forthcoming in support of the many statements and conclusions he has thought proper to announce in advance. He intended to limit his remarks to-night to some differences between himself and the author as to statements made by the latter concerning a recent visit to Koch's laboratory. Dr. Shakespeare also had been in Berlin last summer, and had then enjoyed the privilege for about a month of working under Koch and his assistants during six or seven hours daily.

1st. The author had declared, in terms far less equivocal than those printed, that Koch's policy is to hinder or prevent strangers who visit the Gesundheitsamt from retracing his now famous experiments upon tuberculosis, and stated

that no one had ever been permitted to inquire into the infectiveness or parasitic nature of tuberculosis, save one man.

2d. The author had further announced that Koch has so far modified his views that he now admits that neither the form, size and aspect of the tubercle bacillus, nor its want of individual motion, nor its peculiar behavior toward staining fluids, distinguish it from many other bacilli.

Dr. Shakespeare regarded these statements as misrepresentations of Koch's animus, as well as of his present opinions. He felt impelled to thus publicly express himself, because perhaps every member present had known of his late visit to the Kaiserlichen Gesundheitsamt. To be silent under these circumstances would constitute a tacit assent to these declarations—a false position in which he was unwilling to be placed. Moreover, the grave importance of this whole question; the presumed desire of this learned Society to be possessed of all the evidence bearing upon every phase of it; justice to the fairness, honesty and consistency of the distinguished author of the bacillus theory of tuberculosis, whether it be true or false, forced him to express now his dissent from the foregoing declarations of his friend.

Previous to the announcement of the discovery of the "tubercle bacillus," he had been most favorably impressed by the exactness and completeness of Koch's labors in the final establishment of the parasitic nature of anthrax (French, charbon; German, milzbrand; English, splenic fever), as also by the evident caution and reliability of that investigator. This had prepared him to begin the examination of the grounds of Koch's startling claims regarding the nature of tuberculosis with no small degree of respect for their author. At that time he had no definite views concerning the cause, infectiousness or contagiousness of tuberculosis. Certainly he did not commence this examination with a mind wholly preoccupied by a theory of his own which he thought to be in conflict with that of Koch.

He had not gone to Berlin for the purpose of discovering there the truth or falsity of the claims for the "tubercle bacillus." On the contrary, recognizing the growing importance of research among the various forms of bacteria as possible causes or modifiers of pathological processes, and having personally experienced much trouble in prosecuting such studies whilst following described methods, and, through his intimate relations with the University of Penn-

sylvania, having known of similar difficulties in the Pathological Laboratory of that school of medicine, he had at length determined to obtain, if possible, ocular demonstration of Koch's classic methods of isolation, culture and study of minute organisms, and had become one of "the pilgrims" to that Mecca toward which Dr. Formad himself had directed his steps only a few weeks before.

Arrived in Berlin he had been most cordially welcomed at the Gesundheitsamt by Dr. Koch and his corps of accomplished collaborators, and every possible facility for furthering the object of his visit was most willingly and courteously tendered during the whole of his stay, though doubtless at the cost of much inconvenience, for, beside work upon important investigations, active preparations for the departure of the cholera expedition to Egypt were then in progress. He could say that he had never spent a month with more pleasure or profit. While it had not been his desire to give especial attention to the "bacillus tuberculosis," more than to the bacillus anthracis and to other bacteria, yet, as far as his wish extended, and the limited time at his disposal served, in his practical work the "bacillus tuberculosis" was not neglected.

He felt impelled to say, in the most emphatic and unmistakable language which he could use, that he himself was not only readily permitted to go as far as he wished in the investigation of the tubercle bacillus, but furthermore, on no single occasion did he meet with any hindrance whatever, or perceive the slightest indication of a desire on the part of Koch to prevent the retracing of his experiments upon that subject. He had heard of no one having met such a difficulty there other than Dr. Formad. The only person who, previous to the presentation of the paper under discussion, had to his knowledge published an account of personal work done upon tuberculosis in Koch's laboratory was Watson Cheyne, England, whose report amply testifies to Koch's willingness to have his experiments examined. Dr. Formad, in his communication as printed, excepted this work of Watson Cheyne, perhaps wisely, for he several times quoted for other purposes this same report.

If Dr. Formad, during the three or four days of his attendance at Koch's laboratory, did not experience an enthusiastic reception, and, as he intimated, was not permitted to experiment upon the pathogenic qualities of the tubercle bacillus, he might far more reasonably have attributed this

coldness to an irritation naturally produced by his published remarks in which Koch had been accused of unscientific work, and the insinuation been offered that the researches made at the Imperial Health Office had been unduly influenced by Kaiser Wilhelm, than to have assumed from his reception that Koch habitually objected to have any one look into the genuineness and reliability of his work upon tuberculosis. Indeed, the simple fact of his admission at all under the circumstances, could fairly have been regarded as evidence of Koch's willingness to open his laboratory even to an opponent whom he regarded as unfair. The Gesundheitsamt is a department of the German Government. Koch and his chief assistants are officers of the German Army or Navy. They are all intensely loyal to their Emperor. They believed that Dr. Formad had purposely and unjustifiably stepped outside the proper sphere of a purely scientific communication, to publish a reflection insulting to them and their Kaiser.

Before dismissing this indirect attack upon the reliability of Koch's published observations upon tuberculosis, Dr. Shakespeare took this opportunity to say that his personal observation of Koch, as well as a careful examination of his publications, had led him to the conviction that the whole medical fraternity does not possess a more painstaking, capable, cautious, thoroughly honest and reliable investigator of the causes of disease than the distinguished discoverer of the tubercle bacillus. He would speak in similar terms of those of the corps of official collaborators at the Gesundheitsamt, with whom he had come in contact sufficiently often to form an opinion.

The second statement above mentioned, namely, that Koch has now essentially modified his views concerning the characteristics of the tubercle bacillus, was next examined. Dr. Shakespeare could only say that Dr. Formad's extraordinary announcement was the first and the only information upon this point which he had received. Certainly he had heard nothing and seen nothing whilst at the Gesundheitsamt, which could in any manner confirm such a statement. It is true that, while at Berlin, the author had related to him his interview with Koch, and had said that the latter had been far less dogmatic than he had expected, mentioning among other things a little friendly controversy concerning their opposite views, in which Koch had seemed quite willing to admit the *possibility* that, under favorable

circumstances, the tubercle bacillus might develop a flagellum at its extremity and thus become endowed with individual motion (Dr. Formad had claimed to have seen this motion), and had appeared quite willing to admit also the *possibility* that in the course of time it might be discovered that other bacteria would react toward staining fluids in a manner identical to the reaction of the tubercle bacillus. But an admission that certain things *may be possible*, and a statement, based upon present knowledge and experience, that they do exist, or are even probable, are quite different matters. During Dr. Shakespeare's work upon the tubercle bacillus in Koch's laboratory, which was after the termination of the short visit of Dr. Formad, he was taught to differentiate the tubercle bacillus from all other bacilli by means of its characteristic reaction, now well known, toward certain staining agents, no less than by its peculiar size and shape, as seen under high magnifying powers (Zeiss' $\frac{1}{12}$ was generally used for this purpose). The statement that the author of the bacillus theory of tuberculosis has practically withdrawn his claim that there is something characteristic in the staining of the tubercle bacillus and in its morphology which distinguishes it from other bacilli is the more astonishing and incredible because of the fact that, besides the existence of overwhelming testimony from all quarters of the globe in confirmation of this original claim, even Dr. Formad, however persistently in print he may assail this claim of peculiarity, is himself in the habit of differentiating this minute organism from all other known bacilli for purposes of diagnosis and of demonstration to his pupils *by means of this self-same characteristic coloring and morphology*.

Although it had not originally been his intention to discuss them this evening, Dr. Shakespeare briefly considered Dr. Formad's claims of discovery of the etiology of tuberculosis as set forth in his two papers. This author had been among the first to controvert Koch's theory of tuberculosis. Somewhat more than a year ago he made the first announcement of his views. In this communication the author advanced a theory of his own, which he believed to be opposed to that of Koch. He claimed that there is no necessity for the action of a specific agent in the production of tuberculosis, and that therefore such a specific agent can have no rational existence. This claim was, in the main, based upon his belief in the discovery of an anatomical peculiarity of those animals known to be especially prone to

tuberculosis. This peculiarity he thought to consist essentially in a narrowing of the connective tissue lymph-spaces in certain animals—the scrofulous—and to be either hereditary or acquired. He claimed the inflammatory process in such animals, whatever be the exciting cause, is necessarily tuberculous.

On the occasion of the presentation of his first paper, Dr. Formad undertook to demonstrate this reputed anatomical peculiarity by the exhibition, under the microscope, of a number of anatomical preparations. At that time Dr. Shakespeare had regarded that demonstration as far from satisfactory or conclusive. In the first place, no single section showed lymph-spaces. In the second place, the method of preparation followed (that for ordinary histological examination—hardening in alcohol, cutting thin sections, staining these with carmine, mounting them for examination in Canada balsam) naturally was not capable of demonstrating lymph-spaces; not one silver or gold preparation was exhibited. Indeed, this common and satisfactory method of studying lymph-spaces had apparently not even been resorted to, for it is to be presumed that the most positive and demonstrative specimens in the possession of the author were those selected for exhibition. It is true that some of the sections under the microscope showed a cellular hyperplasia of the connective tissue—an appearance by no means new to the scientific world. And this was the sole evidence presented in support of a reputed discovery concerning an important anatomical peculiarity of the lymph-spaces of so-called scrofulous animals, upon which an exclusive theory of the etiology of tuberculosis has been erected by the author and claimed to be demonstrated.

Recognizing the importance of that reputed discovery, this learned Society had at once appointed a committee, consisting of its most experienced microscopists, to examine anatomical preparations which Dr. Formad should lay before it in proof of his own announced discovery. Nearly eighteen months have since elapsed, and yet, during all that time, not one preparation has been submitted for examination by that committee.

In the paper at present under discussion, the author complaisantly refers, for proof of his so-called discovery, to the evidence brought forward in his first paper, and supplements this by *promising* with apparent self-satisfaction the future publication of corroborative observations by some inde-

pendent investigators. Other criticisms might justly be urged, but in view of the foregoing facts alone Dr. Shakespeare believed himself sufficiently warranted in contending that the basis of Dr. Formad's opinion concerning the etiology of tuberculosis has not been established, and also in suggesting that instead of that opinion being referred to as a "theory" against the theory of Koch, it was scarcely yet entitled to be dignified by the name of *hypothesis*.

Futhermore, even admitting that this *hypothesis* concerning the anatomy of the lymph-spaces of the so-called scrofulous animals were, by the most indisputable evidence, demonstrated beyond the possibility of doubt, it still contains absolutely nothing which by itself either necessarily supports the conclusion of Dr. Formad regarding the non-specificity and non-infectiousness of tuberculosis, or antagonizes the claim of Koch for the specific pathogenic qualities of his tubercle bacillus. When, if ever, this hypothesis shall become a fixed and determined fact, we shall then be placed only one step nearer a correct understanding of the etiology of tuberculosis. The reason of that peculiar *predisposition* which certain animals are known to show toward tuberculosis may then have been satisfactorily explained. But what the *exciting cause* of that peculiar malady may be, is an entirely different question. Whatever this may be, it can be readily understood that its power of destruction would naturally be favored by such an "anatomical peculiarity." Such an "anatomical peculiarity," if it really exists at all, can be easily turned to the support of the bacillus theory. The claim of Koch is not that the tubercle bacillus is endowed with pathogenic qualities which under any and all circumstances are capable of exciting tuberculosis. He himself declares that for the calling forth of these powers a suitable soil and conditions favorable to growth and propagation are essential.

Finally, Dr. Shakespeare thought it proper to define his own position with regard to the etiology of tuberculosis. He wished it to be distinctly understood that it was not from the standpoint of a follower of Koch, who accepted all of that investigator's conclusions, that he had offered the criticisms which he had made. In the consideration of such a grave question as the one then confronting him, he regarded it as obligatory to exact the same degree of rigid proof from friend as from foe, whether advanced on the side of popular opinion or against it. He therefore had not

hesitated to express objections to the opinions and statements advanced by his friend.

Dr. Shakespeare admitted, as absolutely established, the power of the tubercle bacillus, under favorable conditions, to produce a genuine and virulent form of tuberculosis. He did not admit that it has been positively demonstrated that no other agent may also be capable of producing the disease; on the other hand, he denied that it has been satisfactorily proved that any other agent is capable of exciting tuberculosis. He believed the proof strong that under certain favorable conditions, tuberculosis is an infectious disease, and that, at least frequently, the infecting agent is the tubercle bacillus. He saw no valid reason to deny that, under certain favorable conditions, tuberculosis may be conveyed from person to person, and in this sense be termed a contagious disease. Whether or not the tubercle bacillus be regarded as the only agent capable of exciting tuberculosis, its virulence is certainly incomparably greater than that of any other known agent. He therefore failed to appreciate the wisdom or the logic of those who, admitting the virulent qualities and propagative power of the tubercle bacillus, yet, because of a lingering suspicion or even of a decided belief that other agents could produce this terrible disease, would still decline to guard against possible infection or contagion. He regarded the tubercle bacillus, when present, as an infallible sign of the presence and activity of the tuberculous process. On the other hand, its absence, unless after repeated and long-continued searches by competent observers, does not positively warrant a negative conclusion. He therefore saw in the tubercle bacillus, an important means of differential diagnosis in obscure cases. From its reported presence in some cases earlier than the physical signs could possibly determine a diagnosis of phthisis, he was inclined to think that it may become of inestimable value to the skillful practitioner, to forewarn him of the beginning of that formidable malady which, if curable at all, must be combated from the very onset.

Dr. Woodbury said that at least two distinct questions had been submitted for discussion: Is consumption contagious? and is the bacillus tuberculosis the efficient and only cause of consumption? One of these is not necessarily the complement of the other. Consumption may be contagious without being caused by a bacillus, and bacilli might cause consumption without rendering it contagious. The first

question he thought should be decided by clinical experience, the second by clinical experience with the aid of morbid anatomy and mycology. Time would permit only a very brief presentation of the arguments in favor of the views which he held, and he therefore would at once state his conviction, and he believed the experience of others would agree with his own, that pulmonary consumption as ordinarily met with is not a contagious disease. Since the definition of a disorder must be made from the clinical picture presented by the majority of cases, he would say that the typical case of consumption does not present any evidence of possessing a contagious character. The question as to the communicability of consumption under exceptional circumstances, he regarded as a very different one from the former. Meningitis or nephritis may be communicated under peculiar conditions, but this would not warrant the clinical teacher in describing them as contagious, at least in any ordinary acceptance of the word. He had seen a number of cases of consumption which had occurred in members of one family living under the same conditions, but had never met with a single case where the evidence of contagion was conclusive. Even cases of apparent communication from husband to wife or *vice versa* could be satisfactorily explained to his mind on other grounds than of direct transfer of the disease by organic or organized particles. The susceptibility to phthisis can be native or acquired, it can not be transmitted by particulate infection.

With regard to the etiology of consumption, it would appear that there are several varieties of the disease which are indistinguishable by ordinary physical signs. In the first place there are two classes of cases which stand apparently identical, but differ in the microscopical character of the sputum; one contains the alleged bacillus tuberculosis, the other not. This leads us to a classification of bacillary and non-bacillary tuberculosis. In the latter class of cases, in addition to syphilitic phthisis, pulmonary actinomycosis, and zoögleic tuberculosis (a form of mycosis recently described by Malassez Vignol*), there are included cases of ordinary pulmonary phthisis but *minus* the bacillus. In the first class, therefore, the question arises, "Are the bacilli necessarily the cause of the morbid phenomena?" He thought that they are not essential, (1) because it has been shown

**Jour. Am. Med. Assoc.*, Feb'y 16, from Archives de Physiologie.

that consumption can be due to other causes and can pursue its course without their appearance, and (2) because they are apparently not a necessary element of tubercle. The bacilli have undoubtedly a certain diagnostic and prognostic value, but their appearance can be accounted for on the hypothesis of their being a mere concomitant of pulmonary consumption, even though it could be shown that they increase its fatality. He was surprised that with such abundant opportunities for observation, clinical teachers had not been able to convince the world or themselves that consumption is contagious, until they are shown something under a microscope. He was more than surprised that Prof. Austin Flint had announced his adherence to the new doctrine, that "pulmonary consumption is due to the bacillus tuberculosis, and arises in no other way."

Dr. George Hamilton said that after a practice of more than half a century, he had seen no case of pulmonary consumption that could, rationally, be attributed to contagion. In two or three families, where several members were affected with this disease, attempts were made to refer it to contagion, but without any sufficient proof. It is to be borne in mind that great repugnance sometimes exists in a family to admitting an hereditary tendency to this affection, scrofula and certain other maladies.

Dr. Dunmire said on the question, "Whether or not simple inflammation of serous membranes could lead to tuberculosis in the non-scrofulous," he would say that he had the notes of a case in which the post-mortem proved death to be caused by phthisis pulmonalis, in which the primary trouble seemed to be the fracture of two ribs on the right side.

While both lungs were involved, the pleuritic adhesion of the right side was almost entire.

An intimate acquaintance with the family, both before and since the death of this patient, has failed to show any sign of tubercular trouble, and as far as he knows, none of this connection have died of the disease.

SOZODONT.—According to the *American Analyst*, this tooth-wash consists of soap, 5 parts; glycerine, 6 parts; spirits, 30 parts; water, 20 parts. Flavored with several cheap oils, and colored. The accompanying tooth-powder is a mixture of orris root, chalk and magnesia.

Selections.

Lectures on Impotence.

BY J. HENRY C. SIMES, M. D.,

Professor of Genito-Urinary and Venereal Diseases, Philadelphia Polyclinic.

WE now have to consider the atonic or irritable weakness form of impotence. This differs from the former—that due to brain lesions—in that the lumbar reflex center for erection is the seat of lesion, in its failing to respond to the peripheral irritation. I may here remind you that it has been demonstrated, by physiological investigations, that in dogs—and there is no reason to doubt but that the same conditions exist in men—there are separate centers in the brain and lumbar region of the spinal cord, which, if stimulated, will occasion erection of the penis. Erection is also occasioned by peripheral excitement of the nerves.

Atonic impotence, therefore, is due to some peripheral irritation, and to a want of reflex action from the lumbar center. Desire is present, and there may even be violent mental excitement; erection is imperfect, and a partial connection may take place, but emission is premature, and the act is very unsatisfactory. Or, the erection is so feeble that intercourse is impossible, yet desire remains, and, finally, there is not only loss of power of erection, but desire is completely abolished. This last is termed the paralytic form. We see there exist three degrees of atonic impotence, and of these the first—desire, feeble erection and premature ejaculation of semen, is the most frequent; after which the second—desire and loss of power and erection; and, finally, the third, or paralytic form—want both of desire and erection, are met with.

The ætiology, or cause, of this form of impotence is either an inflammation or hyperæsthesia of the prostatic portion of the urethral canal, or else diminished or complete loss of reflex excitability of the genito-spinal center without the above lesions. The latter variety is relatively rarely met with.

Sexual excess and masturbation are of the greatest importance as a cause. In those who have practiced immoderately the latter vice, and even when under the

influence of good advice have stopped the evil practice, frequent erections have been produced by amorous thoughts and lascivious reading, which have the same disastrous result. The local lesions caused by masturbation are inflammation of the prostatic portion of the urethra, irritability of the bladder, and stricture, usually near the meatus. Prostatorrhœa, spermatorrhœa and nocturnal seminal discharges are also at times met with. And with these lesions you have the atonic form of impotence.

A long-continued gonorrhœa may occasion the hyperæsthesia and inflammation of the prostatic urethra, which may terminate in impotence.

The clinical history of a case, taken from my note-book, no doubt will give you a better idea of the affection than any description I can make.

A. K., twenty years of age, complains of imperfect erections and premature ejaculations. At the age of fourteen years he began to masturbate, and continued it frequently for three years. Its abandonment was followed by nocturnal seminal emissions, irregular in character. For two weeks he would have them every night, then they would cease for a week. He had taken tonic medicine, which had improved his general health, but the emissions continued, although not so frequent. He had not had sexual connection until one year ago, when the erection was incomplete, the glans penis being flabby and inelastic, and the ejaculation took place in a few seconds. The same trouble has existed ever since. He is easily fatigued, habitually constipated, and suffers from dull, heavy pains in the groins and back.

Examination of the urethra with a bulbous explorer discloses slight tenderness a half-inch from the meatus, more decided four and a half inches further in, and increased as the prostatic portion was reached. On withdrawing the instrument, a stricture was found at five and a half inches from the meatus.

Such a history is the most usual one, and by local treatment applied to the urethra, with rules for the general health, recovery is to be expected. The patient should have a regular daily passage from the bowels, and as constipation is generally present, a laxative pill, or what I prefer, a mineral water—Hunyadi—is ordered to obtain this result; the diet somewhat restricted, and especially a very light evening meal. Stimulating drinks of all kinds are to be

interdicted. Total abstinence in sexual intercourse and all sexual excitement must be insisted upon; 30-grain doses of potassium bromide three times a day. If there is any urethral discharge—and there generally is a slight gleet—astrigent injections, morning and night, are to be employed, as sulphate of zinc, gr. ij to the ounce of water. And, finally, the most important is the passage of a steel bougie every two or three days, depending upon the sensitiveness of the urethra, increasing the size gradually until the full caliber of the canal is reached. If you follow this line of treatment in uncomplicated cases, I feel sure success will follow. Do not make the mistake, as is so frequently done, and order for your patient the medicines known as aphrodisiacs—those medicines which excite the genital organs—as cantharides, phosphorous, strychnia, etc. This will only tend to aggravate the trouble; it is adding fuel to the fire. You do not wish to stimulate the genital organs; rather the contrary. The origin of the disease has been too much excitement of these parts, and your object should be to allay all excitement of a sexual character. Rest of the organs is called for, in order to permit nature to repair any injury that has arisen from overuse. Later, perhaps, it may become necessary to employ aphrodisiacs, but it is very seldom, or never, that they are useful at first. You will do well to avoid them; time and nature will, in the end, accomplish the cure.

The prognosis in atonic impotence depends upon the degree of the affection. Those cases in which desire, feeble erection and premature ejaculation occur are favorable; those in which desire, incomplete erection and impossible intercourse occur are also favorable, but require a much longer time to recover than the former; while in those in which desire and erection are both wanting, the prognosis is very unfavorable; yet it is your duty to make the attempt, and if there is perseverance on your part, and confidence on the patient's, especially if the case is not complicated with sexual hypochondriasis, you may effect a cure.

Besides the means I have enumerated for treating this affection, you can also bring to your aid the following, using them for special indications and as auxiliaries. When the stricture is of a contractile nature, and resists, or you can not make any progress with the steel bougie, it is necessary to cut it, and this is best done by performing internal ure-

throtomy. If the urethra is extremely sensitive, and the passage of the bougie gives rise to exquisite pain, or even may cause an epileptoid paroxysm, it is prudent to cease passing the instrument and endeavor to allay the morbid condition by the use of an injection of chloral hyd., gr. iij. pot. brom., gr. x, aq. camphoræ ʒ j, or even a mild astringent injection, sul. zincii, gr. ij, aquæ, ʒ j; and you may add to it tr. opii, gtt. xv, at the same time giving by the mouth pot. brom., gr. xxx, with ext. gelsem, fl., gtt. v, three times a day. When the inflammation and hyperæsthesia are reduced to a small spot of granulation tissue, the local application of silver nitrate, 30 grains to the ounce, applied by means of the urethral syringe, is of great assistance in hastening recovery. This method is not to be abused; it is a two-edged sword, and may act for good or evil. Do not think every case is to be cauterized; select those which you consider call for such treatment, and it will do good; otherwise injury may result. It is a painful application, and should only be done at the patient's home. He should remain in bed several hours after the application. The urine is to be drawn off before you apply the silver, and he should delay passing his urine as long as possible afterward. The same object is reached by using the solid nitrate by means of the porte-caustique of Lallemand. I prefer the solution and syringe; also glycerole of tannin is used in a similar manner. Counter-irritation by means of small blisters, applied first on one side and then on the other of the perineum, is of great assistance in obstinate cases. Always apply them in the morning, as they are apt to cause some pain and prevent sleep. The cantharidal collodium is the best application. Sitz baths or sponging the parts are very valuable accessory measures, but never with cold water; always advise warm water 95° to 100°. Dyspeptic symptoms are to be met by appropriate remedies. A hard mattress, and not a feather bed, should be used for sleeping upon. Horseback riding, or any exercise which tends to produce hyperæmia of the genital organs, is to be avoided. Cold applied to the urethra, by using a double eyeless catheter, has been recommended, and success is claimed for this method, more particularly in those cases in which premature ejaculation occurs.

Electricity or galvanism has a high reputation, by some authors, as a curative measure. I have seen but little of its application. It is an accessory we may anticipate much

benefit from, and I would not hesitate to employ it in obstinate cases. In addition to any treatment we may employ, there is no doubt, if the patient's means will permit it, much good and time may be saved by advising a change of air, travel, amusement, sea-bathing and the like.

Having brought the case to a favorable end, and recovery being established, it becomes necessary to caution the patient against sexual excess of any kind, since a relapse is certain to occur if moderation is not strictly observed.

Very rarely you meet with cases in which no local lesions of the genital organs can be found; there is neither inflammation nor hyperæsthesia of the prostatic part of the urethra. Such patients are preëminently of a nervous temperament, and the reflex action is lost before the urethral lesions declare themselves. The causes are the same as in the previously described complaint. Its treatment is also the same, except that, as there are no urethral symptoms, it does not call for local treatment.—*Polyclinic*.

Remarkable Case of Tic Doloreux, or Neuralgia of the Second Branch of the Fifth Nerve.

BY JAMES E. GARRETSON, M. D.,

Professor of Oral Surgery and of Clinical Surgery.

Delivered at the Medico-Chirurgical College Hospital, Philadelphia.
Reported for The Medical Bulletin.

THE history of this case extends over a period of eighteen years, the symptoms first appearing in the spring of 1868. The patient, a married man, aged sixty-six years, of temperate habits, states that his occupation for thirty years was that of a rectifier, previous to which he had worked at shoemaking. During the early part of his life he suffered severely from indigestion and hepatic derangement, which was relieved therapeutically. The first intimation of neuralgic trouble was in 1868, slight attacks of pain being felt about the right cheek and orbit when he washed his face in cold water. These pains gradually increased, and he was unable to eat, drink, converse or laugh without a severe paroxysm. After suffering acutely for six months, the pains gradually subsided; the relief, however, proved to be only temporary, as at the end of that time the pains returned with renewed violence, causing excruciating agony.

The trouble also was more extended, involving the lip and nose. A mouthful of water, a current of air, or a touch on the affected side of the face, aggravated the suffering almost beyond endurance. Under these circumstances he was operated on in June, 1871, at which time it was claimed a portion of the nerve, two and a half inches in length, was removed from the infra-orbital canal, and excised in the speno-maxillary fossa. This operation the patient stated gave him relief for about one year, when the pains commenced as before; at first slight, but gradually increasing, until he was brought to the above clinic in a state of great prostration, requesting another operation, and that if he could not be cured he might never regain consciousness. The operation under notice was a repetition of the one claimed to have been performed previously, viz.: the excision of the nerve at the foramen rotundum. After etherizing the patient, an incision in the median line of the upper lip, continued upward to the lower edge of the orbit, thence outward to a point over the prominence of the malar bone released a triangular flap and exposed the anterior face of the antrum, the arteries involved being ligated as required. Close to the wing of the nose some abnormal tissue, in which nerve filaments were interlaced, was noticed. The tissue around the infra-orbital foramen was also in the same condition, the main trunk of the nerve, which finds its exit at that point, being apparently divided and broken up into small fibers. The anterior wall of the sinus was next removed by means of a large burr, revolved by the surgical engine, examination of the cavity showing it to be in a perfectly normal condition. A succeeding step was to scrape a line upon the antral roof, on the line of the infra-orbital canal, and with a burr ream out the floor, exposing the main trunk of the nerve in its normal position, having apparently never been previously removed. The portion of the wall of the antrum next to the foramen rotundum was next cut away with the burr, giving access to the speno-maxillary fossa. The nerve being held by a pair of bulldog forceps, a small fenestrated instrument encircling it was passed into the fossa and the foramen rotundum located, at which point the nerve was excised by means of a fine, long-handled bistoury, the blade being half-an-inch long and at an obtuse angle with the shank of the instrument.

Succeeding treatment was to inject the parts with dilute phénol sodique, and pack two small sponges into the cavity

as tents, stout cords being attached to permit of their ultimate removal. The incision at the lip was next approximated and held in position by means of pins and figure-of-eight ligatures; the remaining part of the wound on the face was united by interrupted sutures. At either side of the incision in the lip was placed a small compress, held in position by adhesive plaster, bringing the inner part of the cut surfaces in contact. A bandage around the head, giving support to the parts, completed the dressing. The speedy recovery of the patient from the effects of the operation, enabled him to be shown to the class, two weeks later, with all trace of the neuralgic trouble gone.—*Phila. Medical Bulletin.*

The Use of Antiseptics in Obstetric Practice.

AT the twenty-sixth annual meeting of the Boston Obstetrical Society, held Jan. 8, '87, Dr. W. L. Richardson, professor of obstetrics in Harvard University, read a paper upon the above subject. It occurred to me that a brief review of the paper might be of interest to your readers. It is an original contribution of positive value, tending, as it does, to still further strengthen our already conclusive evidence that micro-organisms play the all-important rôle in the production of puerperal fever, and, furthermore, that the only proper way to deal with such affections is to prevent, and the only way to prevent them is to carry out antiseptic prophylaxis in its most rigid details, omitting nothing that would have any likelihood of curtailing its efficacy in the least.

Prof. Richardson claims that what antiseptics have done for surgery they are now doing for obstetrics. He called attention to the fact that Semmelweiss, in 1847, declared that puerperal fever owed its origin to the absorption of decomposing matter and was only a form of pyemia. In 1860 he modified this by the admission that, while still being pyemic in character, it might also arise from decomposition of the lochia, blood-clots, necrosed or placental tissue. With a view of preventing its invasions, he recommended the use of disinfectants. His theories and recommendations were received with ridicule, and it is only within a few years that it is admitted that his teachings were the first fore-shadowings of the nature of this dreaded disease. The

Professor then went on to show at some length the gradual evolution of the present method of wound treatment, and adds that the weight of evidence is in favor of those who claim that what was formerly known as puerperal fever is septicemia, identical in its origin, course and results with the surgical septicemia which was formerly so dreaded in the surgical wards of hospitals and in private practice of surgeons. It is now, moreover, clearly recognized that all puerperal inflammations, such as ovaritis, cellulitis, metritis and the like, owe their origin to sepsis. Many were in doubt, however, as to the source of the infection, until the appearance of Koch's work on bacteria, since when it is believed the infection must come from without. He brings to his assistance Dr. H. C. Earnst, Demonstrator of Bacteriology in Harvard University, who gives in a concise manner the views held by modern bacteriologists. The most prominent feature is that suppurative processes and many acute diseases known as infectious, owe their origin to micro-organisms. This is especially the case with that class of affections which may be called "maladies following wounds."

That these maladies are septicemia, pyemia, progressive inflammation, and suppuration and erysipelas. That nothing is more distinctly a wound than the lacerated surface of the uterus after parturition, consequently puerperal fever is a malady following a wound, and is, in like manner, due to bacteria. The two conditions necessary for the entrance and growth of bacteria are present in the parturient state in a pre-eminent degree. The uterus, like any other wounded surface, exposed to the air passing over blood and organic debris, especially to putrefaction and the entrance of bacteria, whilst the profound modifications of its tissues, blood-vessels and mucous membrane, furnishes the second favorable condition for their growth, after they have obtained entrance. The bacteria make their way in from the outside. They are not born from nothing in the uterine tissues; there is no spontaneous generation about it. It is by the entrance of the pathogenic bacteria that a disturbance is produced. These pathogenic micro-organisms are brought to the uterus; they are not necessarily there in the first place, and they are brought there by the air, or some other less usually suspected method of conveyance. The problem is, unquestionably, how to keep these bacteria out of the body. Without their entrance there will be no puerperal fever or septicemia.

Prof. Richardson then gave the practical application of

this theory, and how the problem is being solved; he gives the clinical history of the Boston Lying-in Hospital. This hospital reopened January 1, 1872. Since that time 3,337 women have been delivered, and the study of puerperal septicemia, as it has appeared in that hospital, has been one of the greatest interest. During the first year only 160 women were confined, and one died of puerperal fever. From that time, however, septic infection was more or less prevalent, despite every effort made to prevent its occurrence. On three occasions the hospital has been closed, and before being reopened, every ward has been fumigated and new beds provided. Whenever the hospital was thus closed, there followed a period of comparative immunity from septicemia. For a longer or shorter period the daily temperature would either be normal, or much lower than usual. The freedom from anxiety was, however, of short duration, and gradually, despite every precaution we could adopt, the temperatures would begin to run higher and higher, the lochia would become offensive, the tenderness, more or less marked over the abdomen, would reappear, and soon another patient would fall a victim to puerperal fever. During the ten years preceding 1884 the hospital was rarely free from septic disease of one form or another, and while the visiting physicians were endeavoring in every way possible to protect the patients from septic infection, they were constantly trying to save the lives of those who gave evidence of septic poisoning. In looking back over the records of those years, it seems wonderful what success has crowned their efforts. Various changes have been made in the attempt to rid the hospital of septicemia. As one case occurred after another, every effort was made to avoid any possibility of contagion. Isolation of suspected cases, the employment of extra and special nurses, the assignment of different house physicians to the suspected, and to those whose convalescence seemed normal; the use of every possible precaution to insure cleanliness; the providing of individual bed-pans, syringes, etc.; constant attention to ventilation and improvement in drainage were among the methods adopted. Many of these changes seemed to promise improvement, which, however, was always proved to be temporary.

The staff were a unit in the belief that the views of Semmelweiss were correct, and our object was to prevent the introduction of septic material from without and the

prevention of the absorption of septic material. With this latter end in view we began the vaginal injections, hoping to keep disinfected those parts especially exposed to the lochial discharge, which seemed to us one great source of danger. These were not unfrequently combined with intra-uterine injections, hoping thereby to render innocuous the clots and placental debris within the uterine cavity. All these proved futile, although occasionally it did seem as though some new method of procedure adopted was at last to offer the long-sought-for relief. It was, however, only temporary, and still the mischief went on. In the middle of the winter of 1883-84 corrosive sublimate was first tried, not only as a vaginal douche, but also to disinfect the hands of the attendants. A very decided improvement followed this method of procedure, and again the outlook was more cheering. Still septicemia remained with us, but in a modified form, and the death rate fell decidedly. Then came the announcement of Robert Koch's investigations of bacteria, and it seemed at last as though a better day for obstetric practice and for the hospital was coming. Garrigues, in New York, had adopted the new theory, and had already made public the efforts he was making in the New York Maternity Hospital and the results he was obtaining. We determined to change our whole system. We had been dreading and fighting attacks from within as well as without. We now determined no longer to fight a foe within which existed only in false theory, but to accept the theory of the bacteriologists and prevent the entrance of the foe from the front. Believing the theory of the bacteriologists to be true, that puerperal septicemia was the result of the introduction from without, of bacteria within the body of the patient and that it was impossible for a case of septicemia to be autogenic in its origin, the problem of prevention became at once a comparatively simple one. How best to solve the details of the problem was, of course, a matter of experiment. The vaginal injection during the convalescence, from which we had hoped so much, now seemed to us to be possibly in one way a source of as much harm as good, and was therefore discontinued. We endeavored to disinfect, as thoroughly as possible, the generative tract at the beginning of labor, lest the dreaded bacteria might already have found a resting-place and were only waiting an opportunity to infect the system whenever a break of continuity should admit of their entrance. During

the process of labor, to never allow the patient to be touched the attending physicians or nurse without the free use of antiseptics and the adoption during convalescence of the antiseptic pads, which would still further act as an effective barrier to the entrance of these dreaded germs until the period of danger was passed. A pad similar to that introduced by Garrigues at the New York Maternity Hospital was adopted, except that we substituted what is known as absorbent waste instead of oakum; experience having taught us that the smell of oakum was itself deceptive and had often disguised the odor of the lochial discharge. "Prof. R. then gives in detail the various steps of the antiseptic management of the woman from the time she enters the hospital until her discharge. On admission, if time allows, the patient is given a bath. In every case the genitals and surrounding parts are washed with a solution of bichloride of mercury 1-3,000. The physician and nurse thoroughly disinfect their hands every time the patient is approached. The examining finger is smeared with an ointment made of one part of oil of eucalyptus to four of vaseline. A vaginal injection of bichloride of mercury solution is given at the beginning of labor. As the head distends the perineum and is expelled, the parts are kept clean by the use of charpie dipped in the mercurial solution. After the child is born the vaginal injection is repeated and the antiseptic pad is applied, being pinned at the four corners of the abdominal binder. During convalescence the pad is changed as often as required, the nurse taking care to thoroughly disinfect her hands before removing the pad. Each time the pad is changed the parts around the vulva are sprayed with the mercurial solution. It is usually necessary to change the pad during convalescence about as frequently as it was formerly necessary to change the napkins. The use of the antiseptic pad is continued until the patient sits up, or until all danger of septic infection has passed. All instruments and appliances used in any way are to be rendered aseptic before use, as the antiseptic chain is only as strong as its weakest link; hence the necessity of strict attention to details.

Since the introductions of antiseptic precautions Prof. R. tells us that the results have demonstrated beyond the possibility of a doubt the great value of prophylaxis. In critically examining the results it must be remembered that the drainage, ventilation and hygienic conditions of the hospital

have not been changed: the nurses, house physicians and medical staff are virtually the same; and the patients are from the same class in the community as before. The only change is in the manner of using the antiseptics during delivery, and the more frequent disinfecting of the wards than formerly was the custom. As a result of the present method of prophylaxis, Dr. Richardson gives us the following striking summary in Boston Lying-in Hospital.

In 1881 Percentage of cases with a temperature not over 100° —8; over 100° —88.

In 1886 Percentage of cases with a temperature not over 100° —77; over 100° —22.

He gives the following as regards deaths in Boston Lying-in Hospital: January 1, 1882, to December 31, 1882, there were 288 confinements in the Hospital. Deaths from all causes (before antiseptics year 1882,) 17; Deaths from sepsis 16; January 1, 1882, to December 31, 1886, under the new prophylaxis there were 373 confinements and 3 deaths. Deaths from sepsis 0. The experience of New York Maternity Hospital has been in many respects similar. For instance, in that institution in September, 1883, the last month before the adoption of the new prophylaxis there were 51 confinements and 10 deaths from all causes, and 8 deaths from sepsis. For the year Oct. 1, '85, to Oct. 1, '86, there were 463 confinements and 4 deaths from all causes, and 1 death from sepsis. Now let us put them right here together and see the contrast. Before the introduction of antiseptic precautions there were 19.60 per cent. of deaths from all causes, and 15.69 per cent. from sepsis. After introduction of antiseptic precautions the per cent. of deaths from all causes was: 86, from sepsis 21 per cent. Dr. Richardson has, since December, 1885, made use of the same general precautions in his private practice. The results have been as striking as in the hospital, and adds that convalescence since the use of antiseptics, has been free from offensive lochia. There has been marked freedom from primary tenderness over the uterus or its appendages; less complaint has been made of after-pains, and the general range of temperature has been lower, rarely exceeding 99° . The discovery of Koch and the investigations of other bacteriologists have produced practical results, which must be apparent to any one acquainted with the facts. The adoption of this method of prophylaxis in private practice can only be a question of time. The discussion which followed

the reading of this admirable paper simply resolved itself into confirming the value of Prof. Richardson's observations and the truth of its teachings.—*Edwin Manes Ground, M. D., of Boston, in St. Louis Medical Review.*

Chicago Gynæcological Society.

A CASE OF ANTERIOR VAGINAL ENTEROCELE

with exhibition of patient.

I have a rare case that I would like to exhibit to the Society, one of anterior vaginal enterocele. I have had a few of my medical friends examine it, and they all concur in saying that they have never seen a case like it. The patient is 19 or 20 years of age and has one child, 11 months old. When she was about six months gone in pregnancy, she "jumped the rope" one day, and after that she felt something come down through the vagina. She went to full term and had a normal labor. Whenever she strains or lifts, the enterocele comes down, presses the vulva apart and comes out between the thighs. On examination I find quite a large opening in the roof of the vagina. The edges of the ring can be very easily outlined with the finger, and when the hernia is down the finger in the vagina is at once attracted by a pendant mass, and by pressing it a little one can determine that it is filled with gas. The opening comes down to the left of the uterus, anterior to the broad ligament and posterior to the left of the bladder.

A Fowler pessary has been fitted which seems to answer the purpose of complete retention, and as long as the patient can avoid an operation my advice is not to have one. The uterus is in good position. She made a good recovery from her confinement and is nursing her child, and seems to be in a perfect physiological condition. The question of operative procedure for a radical cure is a very serious one for this patient. Laparotomy is full of difficulty in attempting to close the hernial opening from within, is of a most unsatisfactory possibility in its outcome, and is followed by the very great risk to life which attends all laparotomies. Any operation through the vaginal tract will be attended by such a lack of certainty in results as to cause me to hesitate in essaying it. Until it is found impossible to retain the

intestine in its proper place with a pessary, I have advised the patient to avoid submitting to any surgical procedure. The patient is present, and each gentleman desiring to do so can make the examination and verify what I have said.

Dr. Philip Adolphus: The case just presented for examination by Dr. Etheridge is a typical case of vaginal hernia, the intestine passing between the loosely attached connective tissue which unites the bladder and the anterior wall of the vagina, in its upper half. This mode of descent is much more infrequent than a hernia into the *cul-de-sac* of Douglas. In the case here presented the hernia is reducible in the upright position, contains intestine only, and has for its covering the peritoneum and vaginal wall. What can be done for the patient's relief? These hernias seldom become strangulated. During labor, however, besides being an obstacle to prompt delivery, they are liable to contusion and strangulation. No retentive apparatus is worthy of trial, for all distend the vagina and ultimately increase the evil. What surgical procedure should be attempted? The textbooks to which I have access do not suggest anything. Is the hernia to be closed by way of abdominal section or *per vaginum*? I think the closure *per vaginum* is preferable, and I suggest the following procedure adapted from Stoltz's operation for cystocele: "The patient being placed in Simon's position with the perineum retracted, the hernia is to be reduced and kept in place by means of armed probangs. An incision to be made over the tumor, the tissues divided until the ring of the hernia is exposed. This ring is to be surrounded by a running ligature of very heavy catgut, and then closely approximated, tied, and the ends cut off short, or, if thought preferable, interrupted catgut sutures may be introduced to effect the same purpose. This completes the first step of the operation. Then remove a piece of the vagina larger than the protruded tumor over the region of the hernia. The wound may be closed by running a circular single ligature of carbolized silk in and out, about an eighth of an inch from the margin of the wound, all around it, the end of the ligature being brought out close to the place where it was first inserted. The two ends are then drawn tight and tied, leaving a puckered opening into which a little drainage-tube may be inserted. During the introduction and the tightening of the ligature the intestine may be held back by armed probangs. It is easier to work in this region with the scissors than the knife. Great care

should be practiced in operating in this neighborhood not to wound the uterus and the peritoneum, which can be avoided by elevating the mucous membrane as it is removed. Now a few words in regard to the abdominal section for reducible vaginal enterocele. After having opened the abdominal cavity and withdrawn the prolapsed portion of the intestine, will it be easier to close the hernial aperture than *per vaginam*? I think not. The peritoneum and cellular tissue beneath it (abundantly supplied with lymphatics and blood-vessels, the parametric tissue of Virchow and Spiegelberg) will have to be incised, the bladder and upper portion of the vagina separated, the redundant tissue of the anterior wall of the vagina drawn up and excised, then stitched and replaced; the peritoneum also closed below as well as externally in the abdominal parietes. Will this render the site of the hernial protrusion stronger? Will it be a safer and more efficient operation than the first? I think not.

Dr. H. T. Byford: Dr. Etheridge has shown us one of those rare and interesting cases of anterior vaginal enterocele. The protrusion is through the parametrium in front and to the right of the cervix, the entire uterus being pushed backward, and the bladder forward. The left ureter can be felt passing from the trigone in front of the tumor downward and to the left of it. The broad ligament is pushed backward, and the round ligament outward toward her left side. The parts to the left of the median line seem only slightly to participate in the general displacement. The remedy for this condition, of course, must be to get the displaced organs and tissues back into the place now occupied by the intestine. I think Dr. Etheridge was wise in rejecting abdominal section as a remedy, for no advantage could be derived from it that would compensate for the risk involved. An operation from the vagina that would be justifiably performed upon a girl of her age could not be expected to be permanently successful, as the parts could not be properly replaced, and vaginal support could only be given. The treatment by pessary, already adopted in this case, is better than either of these procedures, because it acts partly by replacing the organs, especially the uterus, and partly by providing a barrier to the descent of the enterocele. Its weakness is that it does not tend to strengthen the parts upon it, and that it weakens those under it. The most efficient and rational method of permanently replacing

the parts, and thus curing the enterocele would be to perform Alexander's operation of shortening the round ligaments. This would draw the fundus forward over the bladder, and thus replace the normal central barrier to the descent of the intestines. It would also draw the round ligament and upper portion of the broad ligament forward to form a lateral support to them. By turning back the base of the broad ligament it would tend to draw back into position the ureter (which is in close relation with its posterior edge), and at the same time the connective tissue through which the ureter runs and which is displaced forward with it. I know of no other method in which the parts could be brought back so nearly to their former relations. A pessary could now be worn until the parts had contracted and regained tonicity. If then the anterior vaginal wall remained redundant a circular piece should be excised in front of the cervix and by a stitch passed around it drawn together, along with the parametric tissue immediately above it.

Dr. Etheridge: If Alexander's operation was satisfactorily performed, what would be the effect upon the bladder and upon subsequent pregnancy?

Dr. Byford: After the operation the fundus is not, or should not be, held down upon the bladder as firmly as in some cases of antelexion in which there are no bladder symptoms of any account. I have performed three operations. In one case the bladder symptoms were benefited, in the others there were none complained of, either before or afterward. As to pregnancy, already there is some experience to show that it does not interfere. The round ligaments are not elongated in pregnancy as much as would be supposed, since the uterus grows to a certain extent away from them. In many cases of antelexion or anteversion the ligaments are shorter than after an Alexander operation, yet give rise to no serious trouble in pregnancy.

Dr. Adolphus: How could Alexander's operation be of benefit if it draws the fundus down and the cervix up, since the enterocele is between the bladder and the cervix?

Dr. Byford: It draws the body of the uterus down under the intestines, displacing them upward. The cervix needs to be held upward and backward in order to secure a proper relation of parts.—*Jour. Amer. Med. Association.*

Diagnosis of Infantile Diseases.

1. CONGESTION of the cheeks, excepting in cases of cachexia and chronic disease, indicates an inflammation or a febrile condition. 2. Congestion of the face, ears, and forehead of short duration, strabismus, with febrile reaction, oscillation of the iris, irregularity of the pupil, with falling of the upper lids, indicates a cerebral affection. 3. A marked degree of emaciation, which progresses gradually, indicates some subacute or chronic affection of a grave character. 4. Bulbar hypertrophy of the fingers and curving of the nails are signs of interference in the normal functions of the circulatory apparatus. 5. Hypertrophy of the spongy portions of the bones indicates rachitis. 6. The presence between the eyelids of a thick and purulent secretion from the Meibomian glands may indicate great prostration of the general powers. 7. Passive congestion of the conjunctival vessels indicates approaching death. 8. Long-continued lividity, as well as lividity produced by emotion and excitement, the respiration continuing normal, are indicative of a fault in the formation of the heart or the great vessels. 9. A temporary lividity indicates the existence of a grave acute disease, especially of the respiratory organs. 10. The absence of tears in children four months old or more suggests a form of disease which will usually be fatal. 11. Piercing and acute cries indicate a severe cerebro-spinal trouble. 12. Irregular muscular movements, which are partly under control of the will when the patient is awake, indicate the existence of chorea. 13. Contraction of the eyebrows, together with a turning of the head and eyes to avoid the light, is a sign of cephalalgia. 14. When the child holds his hand upon his head, or strives to rest the head upon the bosom of his mother or nurse, he may be suffering from ear disease. 15. When the fingers are carried to the mouth, and there is, besides, great agitation present, there is probably some abnormal condition of the larynx. 16. When the child turns his head constantly from one side to the other, there is a suggestion of some obstruction in the larynx. 17. A hoarse and indistinct voice is suggestive of laryngitis. 18. A feeble and plaintive voice indicates trouble in the abdominal organs. 19. A slow and intermittent respiration, accompanied with sighs, suggests the presence of cerebral disease. 20. If

the respiration be intermittent, but accelerated, there is capillary bronchitis. 21. If it be superficial and accelerated, there is some inflammatory trouble of the larynx and trachea. 22. A strong and sonorous cough suggests spasmodic croup. 23. A hoarse and rough cough is an indication of true croup. 24. When the cough is clear and distinct, bronchitis is suggested. 25. When the cough is suppressed and painful, it points toward pneumonia and pleurisy. 26. A convulsive cough indicates whooping cough. 27. A dry and painless cough is sometimes noticed in the course of typhoid and intermittent fever, in difficult dentition, or where worms are present.—*Dr. Bradley in L'Union Médicale du Canada.*

Fracture of the Base of the Cranium.

FREDERICK HYDE (*Medical Times*) concludes his consideration of the above subject with these suggestions:

1. The anatomy and physiology of the base of the skull render its fracture more fatal, independently of their inaccessibility to direct surgical treatment, than when the lesion is restricted to the cranial vault.

2. The symptoms determining the diagnosis in basal fracture are caused by meningeal and cerebral lesion involving the origin of nerves or their continuity, often both, as well as lesions of blood-vessels.

3. While the displacement of fragments in this fracture is but little in the majority of cases, it will be more in the minority; and it is not uncommon, when the displacement is not detected in the outer table, that the inner will be comminuted and the fragments lodged in the subcranial tissues, with blood extravasation.

4. In the majority of examples of this fracture the symptoms of cerebral pressure are plainly marked; if not early, they appear only a little later, and yet so early as to prove that they are the immediate result of the injury, rather than from inflammatory products which appear later.

5. When the fracture involves the lower part of the parietal bone and the temporal with its petrous portion if compound, or only contusion of the part receiving the blow or force with marked symptoms of this fracture, an incision made at or over the site of the bruised scalp will aid in detecting the extent of the injury.

6. If fragments of bone or blood can be reached, remove them; and if there be slight or greater displacement, with positive symptoms of pressure which can not be removed, then apply the trephine, elevate the depressed bones, and if there be blood, remove it.

7. In this fracture, when caused by the direct application of force, as may be in the frontal sinus and in the proximity of the base of either fossa, with positive symptoms of brain-pressure, the hopeless condition of the case left to the expectant treatment, if there be no opening through the soft coverings of the bone at the point receiving the injury, warrants making an incision for exploration, that its cause may be better defined, and if it can not be removed without, then use the trephine.

Erysipelas Developing in the Pharynx.

IN an article appearing in the *New England Medical Monthly* of November 15th, Dr. William Porter, of St. Louis, reports two cases of erysipelas of the upper air-passages, and refers to four others. These six cases are the only ones thus far reported in this country. Some of the English authors refer to it as common. Erichsen, under the head of Erysipelas of the Fauces, speaks rather indefinitely of having seen "numerous cases." Others, however, as Mackenzie, consider it extremely rare. A case of this character occurred in my practice last year, and at the first visit caused no little trouble in diagnosis. I was convinced, however, of its true character as the disease progressed, but was not aware of its extreme rarity till I chanced, a short time afterward, to read the paper of Dr. Delavan. In that paper he expresses a hope of "awakening sufficient interest to secure the more general recording of such cases." The subject is certainly interesting and important, and I therefore venture to report my case.

Mrs. L., thirty-two years of age, engaged in housework. First seen February 16, 1886. For two days she had been suffering with headache, nausea, and severe sore throat, accompanied by fever. That morning the neck and lower portion of the face were observed to be somewhat swollen, and at eleven o'clock there was a slight chill. When seen, shortly after, she complained of nausea, violent pain in head and back of neck, and intense sore throat. There were

some pain and distention of the abdomen that were referred to a local peritonitis for which I had seen her in previous attacks. The face, though flushed, had no appearance of erysipelas. The glands of the neck were enlarged and painful, and the tonsils and pharynx of a deep purplish hue, with a decidedly œdematous, baggy appearance, but no ulceration or membrane. This appeared over the back and sides of the pharynx and involved both tonsils equally, but did not extend into the larynx. There were a few phlyctæ-nular spots on the back of the pharynx. Temperature, $103\frac{1}{2}^{\circ}$; pulse, 96.

At night the appearance of the throat was unchanged, except that the œdema was slightly more marked. There was a slight discharge from the nose, which was somewhat obstructed. A small red spot appeared at the edge of the nostril on the left side, and during the night increased in size. Headache very severe, slight delirium, temperature, 104° .

17th. Throat less œdematous and congested, tongue becoming brown and dry, no delirium. An area of redness, slightly elevated, with distinct borders, had appeared extending from each side of the nose upon the face toward the neck.

At night the pain in the head was still more severe, delirium active, and the whole upper portion of face to roots of hair was involved by the eruption. Temperature, 105° ; pulse, 120.

18th. Tongue brown and dry, delirium slight, temperature still ranging high, scalp involved by eruption, throat and nose decidedly better.

In the subsequent course of the disease there was nothing peculiar. The throat gave no further trouble, and rapidly returned to its normal appearance. The temperature had fallen to normal by the 22d, and exfoliation was beginning over the lower portion of the face. There was no history of a previous attack. The patient had cared for a severe case of erysipelas a few hours at a time for several days about one week before the sore throat and headache began. The hygienic surroundings were fairly good.

The treatment consisted of the ordinary plan of tincture of iron, quinine and stimulants. Nothing further than Dubell's alkaline solution was applied to the throat, as it was evidently at or past the worst when seen at the first visit, and there seemed to be no tendency to extend down-

ward into the larynx. The case was interesting, as the throat symptoms had appeared fully forty-eight hours before the face was involved or even swollen. At my first visit there was nothing whatever upon the cutaneous surface to indicate erysipelas, and at the second but one uncertain spot. The throat alone, though more œdematous than I had ever seen it before, would have been passed as an intense catarrhal pharyngitis. The severe constitutional symptoms, however, with the peculiar local appearance, the œdema, the phlyctænulæ, and deep purple hue, forbade such a conclusion. Not until the eruption had appeared upon the face was the diagnosis clear. In the absence of cutaneous symptoms, it would seem that the diagnosis must always be a matter of some uncertainty and no little difficulty.—*E. E. Wells, M. D., to the Editors of the Medical Register.*

Some Points in Urinalysis.

BY W. S. CHRISTOPHER, M. D., CINCINNATI.

THE author, who is Demonstrator of Chemistry, Medical College of Ohio, read an interesting paper before the Cincinnati Academy of Medicine January 24, 1887, on the above title. The following is an abbreviation of this paper.

Ten or fifteen minutes he thought time sufficient to make a chemical examination of the urine sufficiently accurate for clinical purposes. The results are reliable, the difficulty being chiefly their interpretation. The results of the urinalysis may be looked upon as a group of symptoms in the case. Symptoms, indeed, whose character and degree have been determined with somewhat greater certainty than is possible with many other clinical symptoms. Being only a part of the whole symptomatology of the case, it should not be construed alone, but with the others. Albumin in the urine is often considered the best, if not the only ground for the diagnosis of Bright's disease, yet we are only justified in naming the symptom, *i. e.*, albuminuria.

Urinalysis, as practiced, is reduced to testing the urine for albumin and sugar and taking the specific gravity.

Hypersecretion of the urine masks a large number of conditions. Some are pathological, others are physiological. Temporary increase may often be accounted for by low

temperature, unusual ingestion of fluids, an hysterical paroxysm, or unusual mental excitement or depression, especially the latter. The largest quantity of urine personally measured by the author was 256 ounces, or two gallons. This resulted from the use of diuretics in a case of œdema from chronic Bright's disease.

Of more importance than hypersecretion is diminished excretion of the urine. The cause of this should always be sought and determined. If due to structural change in the kidney it is ominous; if to fever, diarrhœa or warm weather it, of course, bodes no ill.

With the quantity of urine passed in 24 hours we should also study the specific gravity of the same. By the correlation of these two factors we may know whether the quantity of solids passed in the 24 hours is increased, diminished or normal. As urea forms about half of all the solids passed, we may at once know something of the amount of urea. The estimation of the total quantity of solids by the use of Trapp's or Hæser's coefficients is not reliable. The author prefers an estimate based upon a careful consideration of the total quantity of the urine in 24 hours, the specific gravity and the other clinical conditions. The quantity of urea passed in 24 hours, which is generally 30 to 40 grams, or about two per cent., may be taken as the index of the tissue change. It is found to be increased in all febrile affections and in diseases of acute wasting, as diabetes mellitus, and after increased muscular exercise. A diminution of the daily quantity of urea is found in the chronic wasting diseases, in starvation and insufficient feeding. On the other hand, an abundant animal food causes an increase in the quantity of urea and also in the quantity of the sulphates. In some cases of Bright's disease not all the urea which is formed is excreted by the urine.

The estimation of the amount of urea excreted in these cases is usually done by comparing the total quantity in 24 hours and the specific gravity, as already described. While this is of much value, yet it must be done with great judgment, and after all is liable to error, by which unnecessary alarm may be excited, or repose in fancied security be too great. It certainly seems that this old method ought to drop into disuse since we have in the ureometer, an instrument recently devised by Dr. C. A. Doremus, of New York, a simple and easy means of accurately determining the amount of urea in a given specimen of urine. This

instrument is based upon the Knop-Hunter method of estimating urea, which consists in decomposing the urea by means of an alkaline hypobromite. Nitrogen and carbonic acid are among the products resulting. The carbonic acid is absorbed by the excess of caustic alkali, and the volume of the remaining gas, nitrogen, is measured and serves as an index of the quantity of urea. Doremus' instrument is so graduated that the volume of nitrogen is at once read off in the percentage of urea.

The reaction of normal urine is slightly acid. A marked increase in the acidity is readily detected by the litmus paper, and indicates either the presence of uric acid or an increase in the acid phosphates which impart to urine its normal acidity. When the reaction is neutral or alkaline, it is necessary to determine whether it is due to causes within the body or without the body. If the urine be acid when passed and only becomes alkaline when it has stood for a day or two, the change is due to the ordinary alkaline fermentation of the urine, which is due to the presence of a ferment present at all times in the atmosphere, and has for its principal phenomenon the taking up of one molecule of water by the urea, and subsequent decomposition into the molecules of ammonium carbonate. This fermentation may commence within the bladder in certain forms of cystitis, and yet not produce a neutral or alkaline reaction until several hours after the urine has been voided. The alkalinity due to fermentation may be distinguished from alkalinity due to the administration of alkalis, etc., in a very simple manner. A piece of red litmus paper dipped in fermented urine will turn blue, but on drying will regain its original tint, owing to the volatilization of the ammonia salt. The litmus does not return to its original color when the reaction is due to fixed alkalis.

The remaining characters of urine are of rather less importance than those already noticed. The odor sometimes conveys reliable information, as, for instance, in cancer. Hoffman and Ultzman's method of estimating the chlorides present in the urine, is sufficiently accurate for clinical purposes. In this you first acidulate the urine with nitric acid, and then add a single drop of silver nitrate solution of a strength of 1 to 8. These directions must be followed out exactly. When the chlorides are present in normal quantity, the precipitated silver chloride takes the shape of one or two coherent curdy masses, which settle to the

bottom of the test-tube, without imparting any cloudiness to the surrounding liquid. A diminution in the quantity of the chlorides is indicated by a tendency of the silver chloride to diffuse throughout the surrounding liquid. This test will not show the presence of an increased quantity of chlorides, but will if the urine be diluted and then applied. The chlorides rank next to urea in point of quantity, and in some cases in point of clinical significance. The chlorides are always diminished in acute febrile conditions, excepting only in intermittent fever. A marked reduction in the chlorides always forebodes evil, and a turn for the worse may be predicted several hours in advance. A complete suppression of the chlorides is said to occur suddenly at times in pneumonia. Sudden evacuation through the kidneys of pent-up dropsical effusion, long-continued mental or physical work, or the ingestion of large quantities of common salt, may increase the quantities of chlorides in the urine. The total amount of phosphoric acid in the urine bears a close relation to the amount of animal food ingested, and the amount of tissue change in the organism. Animal food and febrile conditions increase the amount of the phosphates. This increase in the acid phosphates under an animal diet accounts for the increased acidity under the same condition. The urine of herbivorous animals is alkaline. A decrease in phosphoric acid follows a vegetable diet and certain functional nervous diseases. The blood-coloring matter is precipitated with the earthy phosphates, which changes them from a white to a red or brown, occasionally also rendering them dichrotic.

Biliary coloring matter imparts to the earthy phosphates a brownish hue and uroerythrin, the abnormal coloring matter contained in fever urine, changes the earthy phosphates to a gray. Vegetable containing chrysophanic acid, such as rhubarb, makes the precipitated earthy phosphates a bright red, requiring the coloring matter to be differentiated from that of the blood.

Not many years ago, albuminuria was looked upon as positive proof that Bright's disease was present. Such doctrine is not held to-day. Blood, pus, spermatic or prostatic secretions in the urine necessarily bring more or less albumin. High fever, or anything which will cause a passive congestion of the kidneys, will cause albuminuria. Epilepsy and apoplexy seem to have some connection with albuminuria. Aside from the causes already mentioned,

Grainger Stewart recognizes four forms of albuminuria not dangerous to life. Paroxysmal attacks of albuminuria occur mostly in young adults, and frequently alternate with hæmoglobinuria. It may follow the use of certain foods, as cheese, milk and eggs. It may follow muscular exercise or a sedentary life suddenly adopted by one of active life. Lastly, simple, persistent albuminuria sometimes occurs accompanied by no other evidences of nephritis.

While our knowledge of albuminuria is very indefinite, and while albuminuria is by no means so direful as was formerly supposed, yet the tendency to belittle this symptom may be too great.

Sugar may also be found in other subjects than those of diabetes mellitus, but is of no interest to the clinician.

In closing, the author recommends that each step in a urinalysis be studied as we study each symptom in a clinical case. All its possible causes should be brought to mind, and in determining the lesson taught by the given specimen of urine, we should weigh each of those steps, and fit it into an harmonious whole, just as we make a diagnosis. The lesson of the urine must then be studied in connection with the clinical history of the case. It is only in this way that we derive the greatest aid from urinalysis, promote it to its highest place, and at the same time do not overestimate it.—*Med. Bulletin.*

Some of the Less Common Uses of Antipyrine.

It is unfortunate that many of the more recently introduced drugs, especially the newly discovered antipyretics, should have received names expressive of only one of their applications, for such a nomenclature is misleading and tends to cause other valuable properties of the drug to be overlooked. This remark applies with special force to antipyrine, which has many uses other than as a reducer of abnormally high temperature, but which, on account of its unfortunate name, is regarded and employed by a majority of the profession as an antipyretic pure and simple. We propose briefly to indicate a few of these other less known therapeutic applications of the remedy.

As pointed out in *The Medical Record* of September 11, 1886, by Dr. John Blake White, antipyrine possesses a remarkable power in controlling headache from whatever

cause arising. The writer found that it relieved this symptom when due to indigestion, loss of sleep, menstrual disturbance, or mental fatigue, and that it was efficacious in uræmic headache and in recurrent attacks of cranial neuralgia. It also acted as a prophylactic in sick headache. This observation of Dr. White received independent confirmation nearly at the same time from a German source. Dr. Ungar, writing in the *Centralblatt für klinische Medizin*, of November 6, 1886, states that he has obtained excellent results with the drug in the treatment of hemicrania. When given at the beginning of an attack, or during the prodromal stage, it usually cut short the affection or so modified its intensity that the patients were able to attend to their ordinary affairs with little inconvenience. In a few cases, he states, antipyrine failed to exert any noticeable effect, and occasionally, even in the same individual, relief would be obtained in one attack and not in a subsequent one. The usual dose employed was fifteen grains.

Antipyrine has also been recommended very highly as a dressing to indolent ulcers. Dr. Bosse (*Berliner Klinische Wochenschrift*) has used it for this purpose, and says that it acts as an excellent stimulant and promotes granulation. The surface of the ulcer is covered with the drug in powder, over this is placed a layer of salicylated cotton, and the whole is retained in place by a tight bandage. The remedy is used only as a stimulant, and after granulation has become well established it is replaced by iodoform.

Another use to which this drug has been applied is as a hæmostatic. Dr. Casati uses it in five per cent. solution externally, and also finds it of value when given internally. Dr. Lavrand has found good results from the administration of antipyrine in epistaxis. The remedy, he says, is certain and prompt in its effects, and much superior as a hæmostatic to the perchloride of iron, and he has succeeded by its use in controlling a nosebleed which had persisted in spite of plugging of the anterior and posterior nares. It is employed for this purpose in a three per cent. solution applied on lint and introduced as far as possible into the nasal cavity.

Some observers have also noted a slight hypnotic action of antipyrine. This effect is not marked, but is still fairly constant. It has been noticed especially in cases in which the drug was given for the relief of headache, and possibly it was simply the result of the cessation of the pain.

These are some of the observations which have been reported of the less common applications of antipyrine, and they will suffice to show that the reduction of temperature is not the only therapeutic effect which can be obtained by means of this valuable drug.—*Medical Record*.

As to the Efficacy of Coca Preparations.

I DESIRE to state for the benefit of my colleagues the results which I have obtained during my long career as military surgeon by the use of *vin coca mariani*. Briefly stated, I have used it with the greatest success in profound senœmia, resulting from long, arduous campaigns in tropical countries, and in the gastro-intestinal irritation, with loss of appetite and dyspepsia, which is such a frequent accompaniment of this condition. Two or three wine-glasses of *vin mariana* each day relieved the debility with wonderful rapidity, inasmuch as the tolerance of the stomach for nourishing food and the appetite were restored by its administration. Mariani's wine is vastly superior to the wine of quinia, since the latter by augmenting the gastro-intestinal irritation interferes with alimentation, and consequently with repair, thereby aggravating the anœmia instead of ameliorating it.

I have also employed it in those cases of chronic alcoholism, fortunately rare in the French army, which follow the abuse of absinthe and strong liquors. Mariani's wine, while producing primarily a certain amount of cerebral stimulation, exercised a predominant sedative effect upon the nervous system. I have, moreover, witnessed the spectacle of hardened drunkards giving up their pernicious habits and returning to a normal condition under the influence of this treatment.

I have also employed Mariani's wine successfully in the treatment of the tobacco habit. A few glasses of the wine, taken in small swallows, or mixed with water, were sufficient to replace both pipes and cigars, since the patients obtained the cerebral stimulation which they sought for, albeit unconsciously.

I have also employed it in chronic bronchitis, and even in pulmonary phthisis. Mariani's wine augments the appetite and diminishes the cough in both these conditions. When combating the cough I have given it mixed with

water, a wine-glass of the wine to a tumbler of spring water.

Finally, I have employed it in the convalescence following typhoid fever with the greatest success, and this in cases where the irritability of the stomach was so great that no wine, not even Bordeaux, could be tolerated.

To recapitulate, I am convinced that Mariani's wine is the most potent arm which can be placed in the hands of the military surgeon for the purpose of combating the sickness, infirmities and vicious habits engendered by campaigning and the hardships of military life. I will also state that whenever any other than Mariani's preparations of coca were used, the results intended were not produced; quite the contrary; bad effects and even unpleasant complications were noticeable, and to this I call the special attention of the physician.—(†. Liebermann, M. D., Paris, Surgeon-Major, Officer of the Legion of Honor, etc.).—*N. Y. Med. Monthly*.

Morphine in Diabetes.

IN the *Practitioner* for January, 1887, Dr. J. Mitchell Bruce publishes an account of a series of investigations which he has made as to the effects of the administration of morphine to cases of diabetes mellitus. These investigations of Dr. Bruce throw considerable light not only on the mode of action of morphine in diabetes, but on the pathology of the disease itself. His method was first to ascertain the amount of sugar passed by the patient on an ordinary mixed diet; that is, allowing him to continue the same kind of food as he had been consuming when he was taken into the hospital. The patient was then placed on a strictly anti-diabetic diet; having by this means reduced the sugar to something like a constant minimum, morphine was administered by the mouth, beginning with a moderate dose, and increasing the quantity by small increments as long as the glycosuria continued to yield to the drug and unpleasant symptoms were not developed, until if possible a still lower constant of sugar was reached. In this stage of the treatment, hypodermic administration of the morphine was substituted for its exhibition by the mouth; thus serving to determine as to whether there was any difference in the effect of morphine on the amount of sugar passed in the urine, according, as on the one hand it was allowed to pass through the liver entirely, or, on the other hand, it dis-

charged into the general circulation, thus mainly escaping the hepatic system.

The conclusions which Dr. Bruce feels warranted in drawing from these observations he arranges under two heads.

I. *Therapeutical*.—There can be no question that in this case morphine was of value in the treatment of diabetes. Not only did the sugar disappear entirely under the use of the drug, but the patient's weight increased four and a half pounds during the first course of morphine by the mouth, and his personal condition, subjectively and objectively, was greatly improved. It is true the improvement was but temporary; but it would be equally correct to say that the benefit continued as long as the treatment was maintained. Dr. Bruce thinks that in the treatment of diabetes morphine has suffered somewhat unfairly in reputation by comparison with codeine.

II. *Physiological and Pathological*.—1. In the case before us *the glycosuria was proved to be due to an increased income of sugar into the blood; not to diminished destruction of sugar in the system*. This conclusion was established by the fact that whilst the glycosuria was controlled by morphine, the drug had very much less influence on the disorder when it was thrown into the general circulation (where destruction of sugar is accomplished) than when it was introduced into the *portal* circulation.

2. In the present case *the increased income of sugar was proved not to originate in simple transportation of sugar from the intestine or portal vein to the general circulation*. When all saccharine and amylaceous materials had been removed from the diet, the patient continued to excrete as much as 1360 (later on, even 4000) grains of sugar per diem. It was clear, therefore, that glycogenesis was still active, and that the sugar was derived from the nitrogenous constituents of the food by some organ, whether the liver situated on the portal circulation, or the muscles and other viscera, situated on the general circulation.

3. *The excessive glycogenesis that was going on in this case was proved to be effected mainly or entirely in the liver, not in the muscles or any of the other viscera*. This conclusion followed from two facts: (1) that when the morphine was introduced into the liver by the portal vein, it reduced the sugar to *nil*, whilst it did not materially affect the other viscera, such as the central nervous system; and (2) that when it was introduced into the general circulation it diminished

the amount of sugar excreted only to the degree that might have been anticipated from the portion that would reach the liver through the hepatic artery, whilst it markedly affected the other viscera, such as the central nervous system.

Fourth and lastly, these results appear to prove that in this instance, if the diabetes was of nervous origin (as it is believed to be in some cases) the seat of the disordered process was in the liver, not in the central nervous system or nerve trunks. This conclusion again follows from the effect of morphine by the mouth as compared with its effect *sub cut*; for the subcutaneous method distinctly proved that whilst the central nervous system was profoundly depressed by morphine, there was but little effect on the glycosuria—through this channel, probably *none*.

Intra-Pulmonary Injections.

DR. ARTHUR RANSOME publishes in the *Medical Chronicle* for January, 1887, the account of one case of gangrene of the lungs and four phthisical cases which were treated by intra-pulmonary injections. The one case in which the treatment was thoroughly carried out was that of gangrene of the lungs occurring in a woman, aged 33, in whom gangrene followed an attack of acute pneumonia. The diagnosis was readily made that the case was one of gangrene of the right base of the lung, with a cavity upon the left side due to bronchiectasis. The patient was ordered iron and quinine, and inhalations of carbolic acid through hot water, with eucalyptus oil on a respirator inhaler. These means somewhat diminished the fetid odor of the breath and the sputum, and two days later 10 minims of an ethereal solution of iodoform—I grain in 5 minims—were injected into the cavity on the right side, and a similar injection was made daily into this cavity, except upon two days, when it was injected into the left cavity, where it caused much more pain than upon the right. After two days of this treatment it was noticed that the sputum had lost its prune-juice color, and was less offensive, and the patient felt better, but the cough and amount of muco-purulent expectoration remained excessive. Subsequently an emulsion of iodoform in olive oil was employed as an injection, with much less pain to the patient, and this treatment was continued, with intervals of

a few days, for several weeks, during which time she gained about ten pounds in weight and improved greatly in general health; even the bronchiectasis disappeared; and, though the cavity in the right lung was still perceptible, the patient, at the date reported, had no cough, no expectoration, and appeared to be in good health.

The injections were made by inserting a long needle between the ribs, near the upper margins of the lower one. Care was taken to ascertain if the end of the needle had reached the cavity, or, at any rate, an air-space, by withdrawing the piston, and, unless air bubbled through the fluid, the needle was moved slightly, until this sign of having penetrated into the air-channels was observed.

In the treatment of the cases of phthisis some good effect was temporarily produced in two cases; but, on the whole, the results were not encouraging. Apart from the danger of accident, such as hemorrhage or pneumothorax, the procedure is somewhat alarming and disagreeable to the patient. The ethereal solution was very painful, and the olive-oil emulsion was so viscid that a larger needle had to be used than was absolutely safe.

The solution of iodoform in oil of eucalyptus was the most satisfactory of all the mixtures that were tried.

Use of the Abdominal Bandage in the Second Stage of Labor.

BY CHEVES BEVILL, M. D., WINFIELD, ARK.

IN the September number of the *Therapeutic Gazette*, 1886, page 599, is an article headed as the above, by Dr. J. Wesley Welker, of Stromburg, Neb. I have looked closely in every number since that for some one to say something on the same subject.

I hope that Dr. Welker will not be offended at what I say (such questions strictly belong to obstetric journals rather than the *Gazette*). I am satisfied that many young physicians who have read Dr. Welker's article will be badly disappointed in their expectations by the use of the bandage.

I have used the bandage regularly ever since April, 1877, and have found great benefit by its use in one class of troubles, *i.e.*, anterior or lateral obliquity of the uterus.

Meigs used it in his practice years ago. Cazeaux, in his great work on obstetrics, recommends it in cases of obliquity. On page 412 of the *American Journal of Obstetrics*, April, 1880, is to be seen an account of an "elastic bandage" used by Drs. Morton and Marcy. These gentlemen used it, and speak in high terms of its use in holding the "fundus down," and state that it "was a part of the obstetrician's armamentarium in the Middle Ages."

The main thing I wish to speak of is that Dr. Welker's cases were taken indiscriminately, without seeing whether it was necessary to use the bandage or not. Every physician of any experience has found scores of such cases as the doctor refers to. Now, if these cases are noticed closely, they will be found to be only natural cases of labor, not one word said about any obliquity of the uterus existing. I have seen many cases of labor that were completed in as short a space of time as is here spoken of. If the doctor had cited cases that had been in labor for several hours, and in which the os would turn back in the hollow of the sacrum when the pains came on, there would be more encouragement for the young physician to use the bandage.

I have used it in the second stage of labor in four cases in the last ten months, where the uterus would tilt over anteriorly, and had continued to do so for two or three hours before I applied any bandage. These cases were all women who had borne several children, and their abdominal muscles were relaxed, and this bandage was a great help to them in giving support to the back and abdominal muscles, and keeping the os in the line of the pelvic straits until the child's head would become engaged in the straits.

I wish all physicians would use the bandage in such cases. It would save the mother much pain and hasten labor, and would save the child in some cases. But it will not, according to my observations, work in every case as well as in the cases above referred to.

I saw a case a year ago where a child's life was lost, I am satisfied, by not using the bandage. The forceps were applied, and the child's head badly bruised by them. The physicians in charge said that the os would turn back in the hollow of the sacrum, and that the os was fully dilated. In such cases use the bandage, or any other contrivance. But let us not make doctors think that it will do in all cases as well as in such as above referred to.

Microscopy.

San Francisco Microscopical Society.

Reported for the MEDICAL NEWS.

THE celebrated microscopist, Dr. Woodward, of Nobert's Test, has resolved the lines, and photographed them, and so have many gentlemen in the Eastern States and in California seen them, but it is a very delicate, difficult test. In the great International Exhibition, 1851, M. Foucault, of Paris, exhibited a specimen of micro-engraving, supposed to be unsurpassable for minuteness. Soon after this, Mr. Peters, a London banker, constructed a machine on the principle of a pantagraph or eldograph, by which was engraved the Lord's Prayer so small, that if all the words in the Bible and Testament were written the same size, the whole might be comprised twenty-two times over in one square inch.

Mr. Webb has gone far beyond this, having engraved a Lord's Prayer in which each letter does not occupy the 200 millionth part of a square inch, and in which latter space (on a scale of equal proportion) the whole Bible and Testament might be inscribed fifty-nine times.

This seems at first incredible. It is confessedly difficult, if not impossible, fully to realize and appreciate such a statement. But these are not mere ideas, they are substantial facts, and as *Res non verber*, are as capable of demonstration as that 3 is the half of 6, or that 12 times 12 are neither more nor less than 144.

Let us see. I have before me two engravings of the Lord's Prayer. The micrometer assures me that the first, called A, forms a parallelogram, in which the longer side is the 1.120th and the shorter the 1.132d part of an inch. The prayer is composed of 227 letters. Now if $120 \times 132 = 15,840$, then the writing occupies the 1.15,840th part of a square inch, and the number of letters must bear some proportionate relation to the number in the Bible, about three and one-half millions. The other specimen, called B, is smaller, but the same principle applies to both. The 227 letters here form a quadrangle, the 1.530th by the 1.600th of an inch; consequently, this writing occupies $(530 \times 600 = 318,000)$ the 1.318,000th part of a square inch,

while the 227 legible letters in that space will sustain the same relation above to the number in the Bible.

In the English Bible and Testament there are 3,566,480 letters, and it is easy to show that the scale of size in the specimen A is equal to the whole Bible being written once in the area of an inch, while the smaller specimen B would admit of the whole Bible and Testament being inscribed twenty times in the same space. This can be proved. Simple arithmetic and the sublime rule of three are equal to the task.

Example A.—If 227 letters occupy the 1.15,840th part of an inch, how many times could we write 3,566,480 letters of the same size in that space? $120 \times 132 = 15,840 \times 227 = 3,595,680 + 3,566,480 = \text{one Bible.}$

Example B.—If 227 letters occupy the 1.318,000th part of one inch, how many times could we write 3,566,480 letters of the same size in that space? $530 \times 600 = 318,000 \times 227 = 72,186,000 \div 3,566,480 = \text{twenty Bibles.}$

The above would satisfy the most rigorous mathematician; he would say, admitted that the original measurements are correct, the results must be equally so. Grant the premises, and no sane person can deny the conclusions. It is true, but it does not satisfy an intelligent apprehension. We believe it, because we can not deny or disprove it, just as the astronomer admits the existence of a boundless space because he can not conceive any limit to its extent, or believes time to be eternal, from his inability to conceive either beginning or end.

The editor of the *MEDICAL NEWS* is in possession of one of Webb's engravings of the Lord's Prayer, so small that if the whole Bible were engraved equally as small, it would be contained in a space less than a square inch. It can be read by the microscope with ease.

The Gonococcus.

PROF. JACCOUD, of Paris, closes a recent lecture on gonorrheal infection with the following conclusions, quoted in the *Jour. of Cut. and Gen. Ur. Dis.*:

1. A micrococcus is found in gonorrhea and gonorrheal diseases which is not found elsewhere.
2. It is in all probability the specific microbe of gonorrhea.

3. Its discovery has been of great practical value, especially as regards diagnosis and prophylaxis.

4. The method proposed by Roux furnishes us the most convenient means of proving the identity of the gonococcus in doubtful cases.

5. As regards treatment, the discovery of the gonococcus can not as yet be said to have produced any decided advance.

We can clearly see the great satisfaction to the physician in confirming his diagnosis by the discovery of the specific microbe of gonorrhea, but if it has failed to throw any light on the treatment, which has heretofore been exceedingly unsatisfactory, we fail to recognize any great practical value in the discovery. As to prophylaxis, it remains to be seen what steps can be taken to prove its worth. It does not matter much to the patient whether he has a specific gonorrhea, or a simple urethritis which produces similar effects; whether his urethra is the habitat of a virulent gonococcus, or some form of pyogenic micro-organism; what *is* of interest to him is some method which will rid him of his affliction, let it be whatever it may.—*Weekly Med. Review.*

Gleanings.

TANNIN IN TUBERCULOSIS.—At a recent meeting of the Biological Society of Paris, M. Arthaud made a communication respecting his researches, in conjunction with M. Raymond, on the ætiology and treatment of tubercular affections. Three substances had given satisfactory results: (1) Sulphide of carbon, (2) iodoform, (3) tannin. Experiments were made on rabbits, which were submitted to the action of these substances and examined at the end of a month, in order to ascertain whether they could be inoculated with tubercle. No very decided result followed the use of iodoform, or sulphide of carbon, probably owing to the method employed for introducing those substances into the organism; with tannin, however, the results were very remarkable. Six rabbits were treated for a month with doses of tannin, varying from fifty centigrammes to one gramme; after two successive inoculations—one, with lung-tissue from a patient who had died of acute tuberculosis; the other with miliary tubercle from a hospital patient—no trace of infection was observed, whilst three other rabbits, to which

tannin had not been given, succumbed in consequence of inoculations with the same material. These experiments suggested a mode of treatment which had been adopted with excellent results in over fifty cases. Tannin was given in doses of from two to four grammes a day, and the improvement was visible at the end of a fortnight; the patients had increased in weight and no relapse occurred. In cases of acute tuberculosis, both in children and adults, it sometimes happens that the symptoms appear less favorable; but, at the end of a week or a fortnight, the patient's condition improves, even when fatal results have been feared. From these experiments the following conclusions may be drawn: (1) That tannin is preferable to sulphide of carbon or iodoform in the treatment of tuberculosis; (2) that animals submitted to this treatment for a month offer great resistance to the action of tubercular virus.—*Medical and Surgical Reporter*.

THE DIETARY IN CATARRH OF THE STOMACH.—1. Milk, cold or warm; bouillon; beef tea prepared cold. To one pound of beef cut up in pieces the size of dice, add one pint of distilled water and 10 drops of dilute muriatic acid. Let stand in refrigerator 24 hours; strain and season to taste, and if desired, warm, but not enough to make cloudy.

Peptonized milk; zwiebach not sweetened, crackers, rusk, toast; natural Seltzer and Vichy waters, carbonated distilled water.

2. Soft boiled or raw eggs; rice or sago boiled soft in milk; clear soups; purée of potato; vermicelli or "noodle" soups; raw oysters.

Boiled, roasted, stewed or broiled calves' brains, sweet-breads, pigeons, chickens, calves' feet (?).

No vegetables, except those mentioned to be allowed with soups.

No "wheaten grits," hominy, barley, oatmeal.

3. "Minced" or finely cut boiled ham, and rare beef-steak.

Coffee and tea. Articles under 1 and 2 as advised.

4. Rare roasted beef and veal, especially cold; roasted chicken, and pigeons without sauces, especially cold; venison; partridges, woodcock and snipe, not too fresh; boiled fish; white bread (stale); macaroni; baked apples; fruit jellies; a very small amount of butter, otherwise no fats at any time; only dry wine; no beer; no ale or porter.

Rye whisky or brandy diluted with the waters mentioned may be used with lunch and dinner when pronounced necessary.

NOTE ON THE TREATMENT OF THREAD-WORMS IN CHILDREN.—The complete cure of thread-worms in children is often very difficult. While the ordinary methods used, such as rectal injections of salt and water, infusion of quassia, and other remedies do good for a time, yet they often fail to relieve the attendant symptoms of "worms," symptoms usually very irregular, and in some cases severe in character. In many cases, though the irritation about the anus is relieved by injections, the irregularity of the bowels and the disturbance of sleep remain the same. This is probably due to the fact that the habitat of the worms is higher up in the large intestine, where no remedy introduced by the rectum can reach them.

In many cases Dr. Sidney Martin (*Practitioner*, October, 1886), claims to have found that rhubarb in small doses brings away large numbers of worms, and at the same time regulates the bowels, so that the use of injections may in most cases be dispensed with. The formula which he has found most useful is as follows, varying slightly with the age of the child:

R	Tincturæ rhei,	.	.	.	iii.
	Magnesii carbonatis,	.	.	.	gr. iii.
	Tincturæ Zingiberis,	.	.	.	m. i.
	Aquam, ad,	.	.	.	5 i.

This is to be taken twice or three times daily, according to the effect on the bowels. Whether the rhubarb acts as a vermicide, or simply by "moving the worms on," the writer is unable to say.—*Ther. Gaz.*

DONT'S FOR A SICK-ROOM.—Don't appear anxious, however great your anxiety. Don't let stale flowers remain in a sick-chamber. Don't jar the bed by leaning or sitting upon it. This is unpleasant to one ill and nervous. Don't have the temperature of a sick-room much over sixty degrees; seventy degrees are allowable, but not advisable. Don't neglect during the day to attend to necessities for the night, that the rest of the patient and family may not be disturbed. Don't ask a convalescent if he would like this or that to eat or drink, but prepare the delicacies and present them in a tempting way. Don't throw coal upon the fire;

place it in brown paper bags and lay them upon the fire, thus avoiding the noise, which is shocking to the sick and sensitive. Don't be unmindful of yourself if you are in the responsible position of nurse. To do faithful work you must have proper food and stated hours of rest. Don't permit currents of air to blow upon the patient. An open fireplace is an excellent means of ventilation. The current may be tested by burning a piece of paper in front. Don't give the patient a *full* glass of water to drink from, unless he is allowed all he desires. If he can drain the glass he will be satisfied; so regulate the quantity before handing it to him.—*American Druggist*.

THE TREATMENT OF CHRONIC DIARRHŒA BY SULPHO-CARBONATED WATER.—Dr. de Champeaux reports in *Bull. Gén. de Thérapeutique*, November 15, 1886, two cases in patients greatly enfeebled by exposure at sea and in the tropics, where fæculent, chronic diarrhœa was cured by this agent.

It was given in doses of from 20 to 60 grammes (f 3 v to xv) in milk during the twenty-four hours, and as an adjuvant to tonic and astringent drugs.

Its use must be patiently continued, and the results are obtained only after prolonged use.

Its mode of action is explained by Dujardin-Beaumetz as being disinfectant, destroying micro-organisms and neutralizing ptomaines, and thus removing the irritating causes which keep up the intestinal lesion. It may be prepared in the following formula:

Bisulphide of carbon,	3vi ¼.
Water,	oi.
Essence of mint,	30 drops.

Place in a flask containing three pints. Shake thoroughly.—*Ther. Gaz.*

URETHAN.—Urethan is the subject of an interesting paper contained in *La France Médicale* (September 14, 1886).

The experiences of Ughi and Vakulowsky confirm the conclusions already arrived at by Jaksch, Schmiedeberg, Huchard, Riegel and other observers, and also correspond with the researches of Eloy in the laboratory of the Bichat Hospital as to the physiological action of the drug.

Urethan, according to these observers, preserves the re-

spiratory function in its full activity, but lessens the rectal and axillary temperature. Frequently it produces mental excitement. In doses from 6 to 10 drachms (90 to 150 grains) the drug occasionally produces gastric irritation.

In that it does not depress the heart, it has an advantage over chloral, but as a pure hypnotic it is not so reliable (*Ann di Chim. e di Farmacol.*, April, 1886). Vakulowsky prescribed urethan in delirium tremens, rheumatic pains, sleeplessness (cause not stated), and in gastralgia due to carcinoma. In none of these cases did he find it comparable with chloral. On the contrary, he found it to produce gastric trouble in three patients, headache, rigidity of the muscles, and finally a marked weakening of the heart impulse and frequency. These cases, says the editor, (*Russkain Meditzina*, No. 14, p. 552), do not invalidate the claims of urethan, but they show the extreme variability of hypnotics.—*Ther. Gaz.*

Book Notices.

CYCLOPEDIA OF OBSTETRICS AND GYNECOLOGY. Anatomy of the Internal and External Genitals: Menstruation and Fecundation: Normal Pregnancy and Labor. Being Volume One of a Practical Treatise on Obstetrics. By Dr. A. Charpentier, Adjunct Professor at the Faculty of Medicine, Paris. Translated under the Supervision of, and with Notes and Additions by Egbert H. Grandin, M.D., Obstetric Surgeon to the New York Maternity Hospital, etc. In Four Volumes. Vol. I., 267 Fine Wood Engravings and Four Colored Plates. 8vo. Cloth. Pp. 509. New York: William Wood & Co. Cincinnati: Garfield.

Oftentimes, in reviewing a new work, we consider it due the author to let him speak for himself in regard to the purpose he had in view in preparing it. We will, therefore, quote from Dr. Charpentier's preface, that our readers may know from himself how it was he was prompted to begin this, which has been pronounced to be the most complete work on obstetrics in any language.

"During the past twenty years, works on obstetrics have been published in such numbers, both in France and abroad, that our classical treatises are no longer exact exponents of

the modern science. Seeing that I have acted for two years as head of the Obstetrical Clinic, at the School of Medicine, and as adjunct to the Chairs of Obstetrics held by Profs. Pajot and Depaul, I have necessarily kept abreast of the progress in this science, as well in the theory as in the practice, and my personal experience has been ample enough to allow me to judge of the value of the works which have appeared during this time. My knowledge of the German and English languages has enabled me to read, in the original, the works and monographs published during the last twenty years, and thus to familiarize myself with the opinions of different authors, and to weigh the doctrines emanating from them. My aim, then, has been to write a treatise on obstetrics which, while essentially practical, would give to the practitioner, to the student and to the midwife, a sufficient, although condensed knowledge of modern researches, and thus to fill in the gaps which exist in our classical treatises."

The author has made the work both theoretical and practical—theoretical because he believes it is impossible to be a good practitioner without a broad knowledge of all the theoretical questions which concern our art; but above all, *practical*, he says, since the final aim of the profession of medicine in obstetrics is to save the lives of the two beings confided to our care, and we can not insist enough on the means at our disposal for attaining this end.

This work of Dr. Charpentier is undoubtedly the most complete work upon obstetrics in any language of the world. We do not say this for the purpose only of praising it, for we have no interest in it other than to speak what we believe in regard to it, but we make the assertion having full confidence that an examination of it by any one will confirm the statement. The volume before us, the first, contains over 500 pages, and yet there are three volumes to follow. It will thus be perceived that, in the whole work, every subject pertaining to obstetrics is to be fully treated—that no topic, however collateral in its nature it may be, is omitted, that the student may inform himself in regard to it from some work devoted to some one or other of the departments of medicine. As, for instance, in most other works only a meager description is given of the anatomy of the female pelvis and of the female generative organs, since it is supposed that the student can refer to a work upon general anatomy for any details of structure, etc.; but in

this work a most minute account of the anatomy of all the organs and structures of the female which have to do with generation and labor is set forth. This portion of the work constitutes Part I. which is divided into four chapters and occupies eighty pages. Next comes Physiological Phenomena, forming Part II. which takes up also four chapters. It will thus be perceived that, as regards thorough details following upon the treatment of all the subjects, the work is encyclopedic—though the topics are not treated in alphabetic order.

The work constitutes, undoubtedly, a faithful and unbiased mirror of the theories and of the practice of the most renowned obstetricians of the world. It is not an exposition of Dr. Charpentier's views and experiences merely, but of those of the obstetricians of every civilized nation who have published their views. A physician who has this work in his library knows that he has the means of informing himself in regard to the most recent views in theory and practice of the most eminent practitioners of the world.

It is, as stated by the author, a highly practical work—all the manipulations which devolve upon the accoucheur being set forth in the clearest manner. It seems to us that for some time to come it will be regarded everywhere—in this country and in Europe—as the work on obstetrics *par excellence*.

? QUIZ COMPENDS? No. 9. A Compend of Surgery for Students and Physicians. By Orville Horwitz, B. S., M. D., Demonstrator of Anatomy in Jefferson Medical College, Late Resident-Surgeon of the Pennsylvania Hospital, etc. Third Edition; Thoroughly Revised, Enlarged and Improved. With 91 Illustrations. 12mo. Pp. 210. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co. Price, \$1.00.

The "Quiz Compends," as we have before informed our readers, have been prepared by the publishers for the use of medical students in attendance upon college, and particularly for those preparing for examinations. To fully appreciate their value, it is necessary to examine one or more of them. What strikes one as most remarkable upon looking through one of them is the very large amount of very valuable matter that is contained in so thin a volume. When a popular treatise upon surgery is taken up, consisting

of two large octavo volumes, each one containing probably 700 or 800 pages, it will seem that such a work does not contain a page less than is actually necessary; but when an examination is made with reference to comparing it with the little volume upon surgery belonging to the series of "Quiz Compends," it will be found to one's great astonishment that there is scarcely a subject discussed in the former *that does not seem to be quite fully treated in the latter*. How can this be? will probably be asked. Our reply is, that a vast amount of information can be stowed away into a very pages by carefully rejecting everything that is not essential and sedulously excluding unnecessary verbiage in expressing what is essential. Take up almost any book and it will be found, on experiment, that all the essential points on each page can be fully stated in three or four lines, while from thirty-five to forty lines are occupied in expressing them.

Each Compend is fully abreast of the times in the department of medicine to which it is devoted. The authors have had large experience as teachers and examiners. The one before us, on surgery, embraces in its instructions all the subjects of surgery, including fractures, wounds, dislocations, sprains, amputations and other operations, inflammation, suppuration, syphilis, tumors, shock, etc.; diseases of the spine, ear, eye, bladder, testicles, anus, and other surgical diseases.

Physicians will find the work very useful to refer to in order to refresh the memory.

A TREATISE ON DISEASES OF THE SKIN. With Special Reference to Their Diagnosis and Treatment, Including an Analysis of Eleven Thousand Consecutive Cases. By T. McCall Anderson, M. D., Professor of Clinical Medicine in the University of Glasgow, Physician to Glasgow Western Infirmary and Cutaneous Wards, etc. With Colored Plates and Numerous Other Illustrations. 8vo. Pp. 662. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co. Cloth. 1887. Price, \$4.50.

Besides several superb colored and steel plates, the work is thoroughly illustrated by new and handsome wood engravings. The colored and steel plates were prepared, under the direction of the author, from special drawings by Dr. John Wilson.

There has been no complete treatise on Dermatology issued for several years; Professor Anderson has, therefore, chosen an opportune time to publish his book. He says in his preface: "Having had unusual opportunities, for upward of a quarter of a century, for studying the diseases of the skin, I now venture to lay before my professional brethren the results of my observations."

No happier introduction could have been written by the author of a scientific treatise. For nearly twenty-five years Professor Anderson has been a general practitioner and a hospital physician, with unusual opportunities for the study of this class of diseases, though not a "specialist," as the term is understood. His experience is, therefore, of great value, and the physician will feel that, in consulting this work, he is reading the experience of a man situated as himself—with the same difficulties of diagnosis and treatment, and who has surmounted them successfully. We believe this to be a valuable feature of the book that will be recognized at once; for it is undoubtedly a fact that a work like the present contains much practical information and many hints not to be found elsewhere.

To help him the author has had the assistance of several gentlemen of special experience. Dr. James Christie, who, from a long residence abroad, is enabled to speak with authority, has written many of the articles on the diseases of foreign climes. Dr. Hector C. Cameron, Surgeon to the Western Infirmary, Glasgow, has contributed most of the purely surgical sections; and Dr. William Macewen, Surgeon to the Royal Infirmary, Glasgow, has prepared the article on ulcers. The Index and Table of Contents were made up by the author's assistant, Dr. Steven, who, by devoting his energies to this feature, has done his work more elaborately than it would have been done otherwise. The proofs were carefully re-read by another assistant, to gain perfect mechanical execution, and the drawings of the plates and wood-cuts have been made by another, specially conversant with work of this kind.

We are justified, therefore, in asking careful consideration of this treatise, and can only add that the therapeutic details of the various diseases of the skin and of the hair—a special section being devoted to this latter class—seem to be presented in the best possible manner, combining practicability with conciseness.

A REFERENCE HANDBOOK OF THE MEDICAL SCIENCES. Embracing the Entire Range of Scientific and Practical Medicine by Various Writers. Illustrated by Chromolithographs and Fine Wood Engravings. Edited by Albert H. Buck, M. D., New York. Volume IV. Quarto. Pp. 816, double columned. New York: William Wood & Co. Cincinnati: Garfield.

Just as we are closing the present number of the *MEDICAL NEWS*, we have received the fourth volume of this very fine work, the previous volumes of which we have noticed. We have neither the time nor space this month to give proper attention to the volume before us, but will in our next issue. We will now only observe that the fourth volume maintains the high character which the previous volumes gave us of the work exhibited. In fact, this, the fourth volume, according to our notion, contains much more valuable matter than either of the three previous ones. The articles have now reached, in alphabetical order, to *MIL*.

Editorial.

THE DEMORALIZATION RESULTING FROM THE PRACTICE OF GYNÆCOLOGY.—Thirty years ago, probably less time than that, three-fourths of the physicians had never heard of the word gynæcology; and, of course, there were, at that time, no gynæcologists. There were physicians even then who, in consequence of large experience in treating diseases of females, having previously, for many years, been general practitioners, but circumstances leading them to give more than usual attention to these affections, as positions in hospitals, caused them to be regarded as being especially qualified to treat them. Such general recognition of possessing superior qualifications, acquired only after many years of practice and gained only by degrees, as it were, would result, in times past, in a physician finally giving his whole attention to the treatment of female affections.

But what a change has been brought about “in these times of progress.” Instead of a doctor becoming a specialist only after the lapse of years, after he has been engaged in general practice for a long time, and after he has had superior facilities for qualifying himself to treat some partic-

ular class of diseases, he now sets out as a specialist so soon as he has gotten a diploma. Nowadays, before a medical man has even had a patient—immediately after graduating—he announces himself as a gynæcologist.

Specialism, as it exists at present, has been carried to an absurd extreme. It is radically wrong, and an injury to the profession and to the community. There used to be such a person as the family physician, and there may be still such an individual in the country; but he has become almost extinct in cities. Families now, as a general thing, only consult the doctor, whom they used to consider their physician, when they can not satisfactorily determine themselves what the ailment is when a member becomes sick, for the purpose of making a diagnosis, but not to treat the affection. So soon as the character of the disease is determined, they then seek a specialist. Where is there any occasion longer for a family physician? There are the surgeons who attend to all injuries. Then there are those who treat specially the diseases of the eye and ear; the throat, nasal passages, and heart and lungs; diseases of the skin—dermatologists; the kidneys and urinary passages; diseases of the rectum and hemorrhoids; female doctors who treat diseases of children (very few of these female doctors are gynæcologists), venereal diseases, etc., etc. But the most numerous of all the specialists—the most blatant, the most obtrusive, the most dishonest and least conscientious—is the gynæcologist.

The extreme with which gynæcology is being practiced at the present time is harmful and demoralizing. Thousands of women are made to believe that they are suffering from some disease peculiar to their sex, when it is totally false. Daily are women induced to visit the offices of so-called gynæcologists, believing that they have some uterine disease, where they are subjected to examinations until they no longer have any more delicacy in having a speculum used than other persons would in having their throats examined; when they have, in fact, no affection that could not be easily cured by a little outdoor exercise and the administration, perhaps, of some tonics. Some women made ill, maybe, by too many household duties—sweeping, running a sewing-machine and looking after children—need rest, and the leucorrhœa which has been troubling them will soon cease. But the gynæcologist, whom a woman has unfortunately consulted, tells her that she has ulceration of the os uteri, or a displacement, after having compelled her, in violation of her

feelings of modesty and her moral scruples, to submit to an examination of her sexual organs. As his treatment consists wholly in applications by the *porte-caustic*, and he gives her no advice in regard to her way of living, of course her supposed uterine difficulty gets no better and she continues on doctoring indefinitely—the purse of the gynæcologist enlarging, while that of her husband is diminishing.

There was recently brought to our attention the case of a young married woman. It having been suggested to her, by friends, that some unpleasant feelings that she was experiencing were due to a uterine disorder, she consulted a gynæcologist. Of course, he diagnosed a female disease, having gotten her to submit to a speculum examination. He treated her right along for months. In time, friends prevailed upon her to place herself in charge of another gynæcologist. He treated her for a number of months. And then another, and another, still without any improvement. With all of them, the treatment consisted in introducing the speculum two or three-times a week and making applications with the *porte-caustic*. After some two or three years, or three or four, she was induced to go to New York and be treated by a distinguished gynæcologist, now deceased. She continued under his treatment for several months, without any improvement. She then returned home and was induced to try a homeopathist. He treated her by doing scarcely anything more than prescribing sugar pellets, advising outdoor exercise and regulating her way of living. In a few weeks she was well, and continues well to the present time. In her case, homeopathy carried off the laurels. This lady, a very excellent woman in every respect, stated that she became so accustomed to submitting to examinations that they had ceased to be repulsive to her.

We will mention one more case only, in order to prove the demoralizing effects of gynæcology as largely practiced at the present time. Very recently quite a beautiful young woman called upon us, not more than eighteen years of age, who announced to us that she was tarrying but temporarily in Cincinnati. She said she had called upon us as she had understood we made a specialty of gynæcology, or could inform her who did; that she had been wearing a pessary for several months (a stem pessary), which had become broken accidentally, and, in consequence, she was suffering very considerable mental perturbation as to what she ought to do under the circumstances. She informed us that she

was one of a pleasure party which had left Brooklyn a couple of weeks previously, and that on the following day she, with her company, would start for New Orleans. We found her to be very intelligent and highly accomplished, having had all the advantages of education and polite training, and fit to move in any society. We learned that she belonged to one of the most respectable families of New York. We mention these facts to show the demoralization that may be brought about by quack gynæcologists. This young woman had been induced by ignorant friends, in consequence of some pains she suffered about the loins, to consult a gynæcologist. The miserable fellow (for we do not know how else to speak of him) succeeded in making a digital examination per vaginam, followed by an examination with the speculum. Then he persuaded the young woman and her parents to believe that she had prolapsus uteri, and that it was necessary for her to wear a pessary. Such conduct on his part we consider as but little better than seduction. It was easy to perceive the demoralization that had resulted from the pretended treatment of this fellow. That natural modesty that one would expect to observe in a girl of her age was entirely gone. She talked as glibly about gynæcologists, female diseases and pessaries as an old lady of sixty years who had had a dozen children. Not a tinge of a blush could be seen mantling her face as she informed us of her symptoms and the treatment instituted by the fellow calling himself a gynæcologist.

We feel perfectly sure of being sustained by medical men in the assertion that it is never necessary to introduce a speculum in the case of a young woman—a maiden; that such an act is an outrage and an indecency; that it is very seldom necessary even to make a digital examination. Respectable young females in their teens, as it is sometimes expressed, are very little, if ever, liable to female disorders. A physician who would be the means of a young woman going about wearing a pessary in her vagina, in our opinion, is a proper person to be sent to the penitentiary.

SUBSTITUTION.—We mean by substitution the act of the druggist by which, when he receives a prescription from a physician in which a certain medicine or preparation is directed to be added, but not having it on hand, he substitutes some other article “just as good.” Many are of the

impression that a druggist would not dare thus to tamper with a physician's prescription, but we have had positive evidence that it is not unfrequently done. We consider that a great responsibility is assumed in perpetrating such an act; and it is surprising to us that sufficient assurance can be had to venture upon it. But as repeated immunity from consequences gives a criminal boldness in committing crime, so we presume, as no penalties are visited upon the substituting apothecary—at least we have never heard of any—he becomes reckless in the commission of substituting.

Substitution is not simply dishonest; it is felonious, and displays the same reckless disregard for life that marks the burglar or highwayman who is prepared to take a life if he meets with resistance while in the act of robbing. The man who does it does not simply filch a little lucre from the pocket of his customer, nor does he merely jeopardize the reputation of a physician, but he puts in peril the life of the customer who trusts him.

By what right does a druggist assume that a drug he substitutes in the place of one prescribed by a physician is "just as good"? We can not call to mind any two remedies that have precisely the same properties. Aloes and sulphate of magnesia both purge, but their actions in other respects are widely different; and it would very soon be discovered that a sad mistake had been made if it should be persisted in, that, under all circumstances, if one of them was indicated, the other could be substituted. Tartar emetic and ipecacuanha are both emetics, but there is certainly no physician who is of the opinion that one can be used for the other with impunity at any time, even though due attention be given to difference in dose.

Although a patient may not suffer harm when there has been substitution in a prescription of one medicine for another by a druggist, by the direct action of the substituted drug, yet injury may, and not frequently does, occur through the physician being misled. The doctor prescribes a particular remedy for the purpose of meeting a certain indication, in regard to which the apothecary is entirely ignorant. But the expected result is not produced, for the reason that the remedy ordered did not happen to be in the prescription case of the druggist when it came to his store, and, not wishing to confess the fact, he substituted something else "just as good;" that is, it is just as good an emetic, or purgative, or tonic, or soporific, but not "just as good," by

any means, for the purposes which the physician was desirous of accomplishing. But the physician has not been made aware of the outrage perpetrated by the druggist. He believes that all remedies prescribed by him have been honestly and conscientiously prepared. What conclusion does he come to under the circumstances when he finds that expected results have not followed upon his treatment? Why, he is forced to the conclusion, it may be, that he has made some mistake in diagnosis, or that he has miscalculated the severity of the disease, or that some constitutional peculiarity or idiosyncrasy on the part of the patient has been overlooked by him. He is led, it may be, to cease the administration of an important remedy, thinking that it has been effectually tried by him, and to endeavor to find some other, if possible, to the great detriment of his patient and to his own credit.

We find there is great substitution by druggists in dispensing those preparations known as "proprietary medicines." We are aware that these have multiplied greatly, and that it is impossible for an apothecary to keep them all on hand. Some of these are undoubtedly valuable, though a great many are worthless; and the fact that this difference exists, makes the substitution of one for another a very serious matter. A physician who has prescribed the preparations of the Rio Chemical Co., of St. Louis, knows that they are reliable; so also when he orders Scheffer's pepsine. When, therefore, he has directed any of them in a prescription and the anticipated results do not follow, he is nonplused. If he has placed his faith upon a rascally druggist, and continues to repose confidence in the remedy (believing that he has used the one he prescribed, when in fact he has not), he concludes, to the injury of his patient, that he himself has been mistaken.

The honest members of an honorable profession, and fortunately they are largely in the majority—the reputable pharmacists—owe it to themselves to expose these vultures and drive them from the trade. In doing so they should have the aid and countenance of every physician. In the meantime, let every physician not content himself with shunning the shops of those whom he detects in the nefarious habit of substitution, but boldly denounce them, and warn his patients against carrying prescriptions to them. Concerted action of this sort will soon purge the trade of the offending members.

A NEW, SIMPLE AND SAFE METHOD OF PREVENTING HEMORRHAGE, TREATING ANEURISMS, AND APPLICABLE FOR OTHER SURGICAL PURPOSES.—The heading we here give, quite a lengthy one, is the title of a paper read recently before the Academy of Medicine, of Cincinnati, by C. S. Muscroft, M. D. The paper recounts an operation of amputation at the hip-joint performed by the Doctor at St. Mary's Hospital, Cincinnati, on August 10th, 1886.

As our readers are aware, the excessive hemorrhage that is liable to occur, in consequence of the great size of the femoral artery, during the operation of amputating at the hip-joint, is a subject of the gravest consideration to the surgeon. An uncontrolled hemorrhage, but for a moment or so, may result fatally. A possible great loss of blood, therefore, in Dr. Muscroft's case, with fatal consequences, had given him, previous to the operation, no little anxiety. He studied carefully the various plans adopted by distinguished surgeons for controlling the hemorrhage, but none of them being satisfactory to him, he concluded to reject them all and devise a plan of his own.

When the patient had been made ready for the operation, having been brought under the influence of chloroform, Dr. Muscroft explained to the medical gentlemen, who had assembled in the operating room to witness the operation, the plan he had concluded to adopt for the purpose of restraining hemorrhage.

On beginning the operation, Dr. Muscroft, the patient having been fully anesthetized, as intimated, seized a needle one-eighth of an inch wide, slightly bent at the point, about the thickness of a dime and four inches long, and introduced it perpendicularly into the front of the thigh, about an inch and a half below Poupart's ligament. The exact point of entrance was one-fourth inch internal to the combined sheaths of the vein, artery and nerve. The point was pushed beyond the vessels, then turned outward until the needle had passed beyond them; the point was then pushed out through the integument. The needle was then behind the vessels and nerve. A piece of cord was passed under the heel and point of the needle forming a figure of eight ligature. Before the ligature was applied the femoral artery could be felt pulsating strongly, but when it was tightened the pulsation below the needle had ceased entirely. This, to say the least, was very encouraging.

We will now describe the manner of performing the opera-

tion; as in doing so it will be more easy to understand the *modus operandi* of the needle, and the figure of eight ligature in preventing hemorrhage.

The oval form of operation was decided upon. An incision made with a bistoury was begun on the outside of the upper part of the thigh and pelvis, an inch above the trochanter major. It was carried down three inches; then a diversion was carried posteriorly through the gluteal muscles as far as the inside of the thigh; another diversion was made anteriorly, nearly as far as the sheaths of the large femoral vessels. There was but little bleeding from the gluteal or sciatic arteries. The head of the femur was readily dislodged from its cavity, and the upper part of the os femoris cleared from its attachments. A catlin was then used to separate the remaining tissues containing the femoral artery. When this was done the profunda femoris had to be ligated. The femoral artery was perfectly compressed, standing out in bold relief from the surrounding tissues for three-fourths of an inch, *but had not bled a drop*. The artery was held by the finger and thumb until a ligature could be permanently applied. The needle was then withdrawn, *no blood whatever flowing from its presence*.

It is stated that the perfect control of the artery filled the bystanders with admiration and delight. We think if Dr. Muscroft does not deserve a feather in his cap in consequence of the wonderful success of his invention for preventing hemorrhage, in such operations as he performed, in which fatal bleeding is so apt to occur, we do not think any surgeon ever merited a feather for any success that ever attended him in an operation. A general of an army gets great honor for obtaining a victory over a general of another army from which thousands of human beings have been slain and mangled, but by how much more should honor devolve upon a surgeon who, as the result of deep reflection and scientific skill, has devised a method of so preventing hemorrhage that an operation is made feasible in many cases in which it would not be when a great loss of blood would probably attend upon it, and thus valuable life is saved not merely in some particular instance, but during future time.

We have not space in the present number of the MEDICAL NEWS to give more than an incomplete outline of the paper of Dr. Muscroft, and consequently must omit many interesting points. This simple method of preventing bleeding

which he has devised, he has recently employed successfully in an amputation at the shoulder joint. He further claims for it that it can readily be employed in any case of severe hemorrhage from the extremities, whether from gunshot wounds, railroad accidents or serious bleedings from any cause. In such cases, he states, that it only intended to restrain the bleeding until permanent ligation can be accomplished. This form of compression can be used for hours, or days if need be, without complicating in any way other surgical procedures.

It can be applied, he continues to say, to any part of the extremities in shorter time than the tourniquet. It has the advantage of not causing the pain or swelling produced by the latter mode, nor does it require an assistant. Dr. Muscroft has employed this compression to shut off the circulation of the femoral artery below Poupart's ligament for a secondary bleeding after amputation of the leg. The result was all that could be desired. The pin remained in place four days. After removing the pin no dressing was needed, nor was there any unpleasant result.

Dr. M. claims that this method of cutting off the circulation will prove the simplest, easiest and most effective in the treatment of aneurism in any part of the lower extremities, or in the axilla or other part of the upper extremity. In the latter part, the axillary artery can be readily compressed below the clavicle.

Dr. Muscroft believes, and we have little doubt of it, that this mode of controlling arterial circulation will no doubt open a new field in surgical procedures, its application being so simple and easy of accomplishment.

In the discussion of the paper before the Academy of Medicine, one of the speakers claimed that Dr. Muscroft's method is, "in essence, but acupressure, which has been thoroughly tested and is not to-day regarded with very much favor. In reply, Dr. M. claimed that his measure and acupressure are not at all identical—acupressure never having been employed as a prophylactic, and only in open surfaces, after, and not before, an amputation. We ourselves have never heard of acupressure being employed for restraining arterial hemorrhage previous to an operation—as an amputation.

THE INTERNATIONAL MEDICAL ASSOCIATION.—*The British Medical Journal* has the following to say in regard to the ar-

rangements for the coming meeting of this great international organization:

"The ninth International Medical Congress will, as our readers are aware, meet in Washington on Monday, September 5th next. The Senate of the United States has passed an appropriation providing \$10,000 (£7,000) for the expenses of the meeting. The last Congress in Copenhagen was formally opened by King Christian, and the ceremony on the present occasion will, it is stated, be performed by the President of the United States, who has consented to be a patron of the Congress. The other patrons are the Secretary of State, the President of the Senate and the Speaker of the House. The Congress will meet under the presidency of Dr. N. S. Davis, LL.D., the Secretary-General being Dr. J. B. Hamilton (Supervising Surgeon-General of the United States Marine Hospital Service). The Chairman of the Executive Committee is Dr. Henry H. Smith (Emeritus Professor of Surgery in the University of Pennsylvania). The Chairman of the Committee of Arrangements is Dr. A. Y. P. Garnett (Columbia University, Washington), and the Associate Secretaries of the Congress, Dr. W. B. Atkinson (Philadelphia) and Dr. G. B. Harrison (Washington). The list of foreign medical men proposing to attend the Congress is kept by the Secretary-General, Dr. J. B. Hamilton, and the following are announced as having been entered on his books: Drs. H. Radcliffe Crocker, J. Althaus, W. Murrell, B. W. Richardson, J. L. W. Thudichum, Charles West, Eustace Smith, G. H. Savage, A. W. Orwin, Edmund Owen, T. Bryant, W. Anderson, R. Barwell, Christopher Heath, J. W. Hulke, C. Macnamara, P. H. Pye-Smith, W. H. Dickinson, J. S. Bristowe, D. Hack Tuke, Henry Power, W. A. Brailey, D. Ferrier, H. C. Bastian, John Simon; Sir James Crichton Browne, Wm. J. Mickle, Walter Pye, Sir E. Sieveking, George Johnson, Dudley W. Buxton, R. M. Wolfenden, W. L. Purves, Jonathan Hutchinson, George Thin, T. Colcott Fox, and Alfred Lewis Galabin, of London; W. D. Spanton, of Hanley; H. B. Hewetson, Leeds; J. Comyns Leach, Dorset; T. M. Dolan, Halifax; J. W. Taylor, Scarborough; W. M. Whitmarsh, Hounslow; Lawson Tait, Birmingham; Walter B. Geikie, Toronto, Ont.; W. Frazer, Bournemouth; A. T. H. Waters, Liverpool; F. M. Pierce, Manchester; P. H. Brice, Toronto, Ont.; J. A. Grant, Ottawa, Ont.; Daniel Clark, Toronto, Ont.; W. N. Kingston and Duncan C. MacCallum, Mon-

treál, Que.; O. Chiari, Emil Ehrendorfer, Gustav Braun, Herman Hofrath Widerhofer, E. H. Kisch, Hans von Hebra, Isidor Neuman and M. Kaposi, of Vienna; Prof. Alvis Monte, of Prague; A. Chervin, E. Landolt, M. Magi-tot, Walter Douglas Hogg, Dujardin-Beaumetz, P. Mérière, Léon Petit, M. le Marquis Nadaillac, J. Amédée, Doléris, A. Charpentier, Henri Picard, Max Durand-Fardel and P. Budin, of Paris; Prof. H. Leloir, of Lille; J. A. S. Grant Bey, Cairo, Egypt; Leonard Boor, Nelson, New Zealand; Miguel Gonzalez Gonalsey, of Periana, Spain; F. Wenckel, of Munich; A. Wernich, of Coeslin; Oscar Lassar, L. Lewin, Dr. Gusserow, J. Veit, A. Eulenberg, A. Oldendorff and P. G. Unna, of Berlin, Germany; Domenico Perruzzi, of Bologna; Eugenio Fazio, of Naples; Luigi Casati, of Forli; W. W. Baldwin, of Florence; Dr. A. Cordes, of Geneva; Professors Guye and Tilanus, of Amsterdam; Alf. Struebens and Prof. Hauben, of Brussels; Leopold Servais, of Antwerp (detailed by the government); G. Gray, Castlewellar; R. Gray, Armagh; T. M. Madden, J. W. Moore and Samuel Gordon, of Dublin; H. Reiman, of Kiev; W. Macewen, Glasgow; A. Mitchell, J. J. Kirk Duncanson and W. Allan Jamieson, Edinburgh; McCall Anderson, Glasgow C. Bäumlér, of Freiburg; H. Hirschsprung, Copenhagen; J. Korosi, of Buda-Pesth; Dr. Hegar and Dr. John Sutcliffe, of Frieberg.

We have it on the best authority that several of the Transatlantic steamboat companies are prepared to make considerable reductions in their fares to medical men attending the International Medical Congress at Washington in September next. The Hamburg-American Steamship Company offers a first-class return ticket for £18. The Royal Netherland will provide the same accommodation for £16; whilst the Red Star Line gives a return ticket from Antwerp to New York for £20. The Inman Line, whose steamers are amongst the largest and fastest on the Atlantic, will also afford every accommodation to passengers at the same reduced fare; but the Cunard has, as yet, declined to entertain the overtures that have been made them. Ladies accompanying members will also be taken on the same terms. The hotel expenses need not exceed 12s. a day, so that members of the Congress and their wives may attend the meeting for about £25 a head. Messrs. Thomas Cook & Sons, of Ludgate Circus, London, and Rue Scribe, Paris, and Domhoff, Cologne, have issued a circular of round tours

through the United States, starting from New York or Washington, at reasonable rates."

We clip the following from the *Lancet*, of London, of the date of March 26th:

"The programme of the proceedings of the Congress will not be completed till after the meeting at Chicago, in June, but it is expected that one of the general addresses will be delivered by Dr. Semmola of Naples, and another by Prof. Austin Flint. Communications are expected amongst others from the following gentleman: Great Britain—Dr. W. Bunnett Spanton, Dr. Julius Althaus, Dr. W. M. Whitmarsh, Mr. Edmund Owen, Dr. R. Norris Wolfenden, Dr. Sidney H. C. Martin, Mr. Lawson Tait, Mr. Henry Power, Dr. Samuel Benton, Dr. W. Macewen, Dr. G. Fielding Blandford and Dr. Geo. H. Savage. Ireland—Dr. Thos. More Madden. France—Dr. E. Landolt, Dr. P. Menière, Dr. M. C. Marquis Nadaillac, Prof. Dr. A. Charpentier, Dr. J. Ameda-Doleris, Dr. Victor Aud'houi, and Dr. Max Durand Fardel. Germany—Prof. Dr. Hegar, Prof. Dr. Gusserow, Dr. A. Oldendorf, Dr. L. Lewin and Dr. J. Veit. Hungary—Prof. Joseph Korosi. Austria—Prof. Dr. Gustav Braun, Prof. Dr. E. H. Kish and Dr. Emil Ehrendorfer. Belgium—Dr. Alf. Struebens. Switzerland—Dr. A. Cordes. Canada—Dr. Daniel Clark and Dr. MacCullum. Italy—Dr. Luigi Casiti and Dr. Domenico Perruzzi. We cordially wish the Congress every success."

LENS-MAKING.—A reporter recently visited the work-shop of the Gundlach Optical Co., of Rochester, N. Y., and learned there, it seems, some curious things. Near a year ago, the readers of the MEDICAL NEWS will remember, we published the fact that the German Government had appropriated \$10,000 to be employed by Prof. Abbe and Dr. Schott, of Jena, in conducting experiments for constructing a new kind of glass for making microscopic lenses or objectives. These gentlemen, as we stated, were successful in their efforts in discovering a method by which a glass could be produced having a far greater refractive power than could be obtained by the usual combination of flint and crown glasses, from which fine microscopic objectives have heretofore been made. By the necessity of employing crown and flint glasses in combination in the manufacture of objectives, as has been the case heretofore, in

order that the light might not be resolved into the colors which constitute it, much has been lost in refractive power, but, with the new glass, instead of there being any loss of refraction, it is greatly increased. The *modus operandi* of making this new glass, we understand, has not yet been divulged, but we are pleased to learn that, after having been made, it can be purchased and brought to this country. The reporter who visited the works of the Gundlach Optical Co. says that it is now used by that firm. Without duty the cost of it is ten dollars a pound. It comes in plates varying from six to nine inches square and from three-quarters of an inch to an inch in thickness. It is brought here "in the rough," just as it is left by the glass-blowers, with the exception that each plate is polished on the edge at a few points, to let the purchaser look through it and see how clear and free from blemish it is. It is said to have a greenish tint like the blue color seen in the water of the ocean or in the sky. But the color is not visible when a small piece of glass is examined. For further particulars in regard to the new glass, we refer our readers to the article in regard to it published several months ago.

The reporter learned that in the process of grinding and polishing lenses, they are cemented to round sticks, prepared for the purpose, and, in this way, held in the hand, while the lapp or shell upon which they are ground revolves on a finally constructed spindle. The greatest care has to be observed in finishing the lenses and fixing them in their final settings. The value of each glass depends on the skill of the individual optician who makes it, and this applies even to an opera-glass, which, the reporter was told, is such an "optic glass" as the "Tusculan artist" employed in his astronomical observations. In fact, the telescope which Galileo constructed was the same in principle as the modern opera-glass.

It was supposed until recently that all fine objectives came from Europe. The optical instrument stores are still full of cheap, worthless French microscopes. But we are glad to know that those wretched things are getting to be less and less in demand. A poor microscope is a nuisance. We would prefer employing simply a good magnifying glass that costs about \$1.50, than to endeavor to use one of those miserable French compound microscopes. The price of a French triplet quarter inch objective is from \$3.50 to \$5.00, but we regard them dear at any price. In this country, at this

time, are made the best lenses of the world. Even France, where microscopic objectives are made by the thousands, sends orders to this country. The Gundlach works received an order recently from London, England.

In the Gundlach works the time of Mr. Gundlach himself is principally taken up in furnishing the formulæ by which the objectives are constructed. The formula prescribes, in figures, not only the exact curvature of every surface of an objective, and sometimes as many as twenty-eight surfaces enter into the problem, but also the exact thickness and diameter as well as the exact distances at which the lenses are to be mounted, and also the various kinds of glass to be employed in their construction.

The Becks, of London, send to this country large numbers of microscopes and objectives of their make. Their instruments are well adapted for scientific work. In fact, in construction they give more attention to producing superior working glasses than they do to making lenses of great resolving power. Therefore, while their objectives are very fine, they are of comparatively low angle of aperture. For instance, their one-fifth inch has an angle of aperture of only 100°. Mr. W. H. Walmsley, of Philadelphia, is their agent in this country.

THE AMERICAN MEDICAL ASSOCIATION.—The Thirty-eighth Annual Session will be held in Chicago on Tuesday, Wednesday, Thursday and Friday, June 7th, 8th, 9th and 10th, commencing on Tuesday at 11 A. M.

We quote the following rules as regards delegates sent to the Association as representatives:

“The delegates shall receive their appointments from permanently organized state medical societies, and such county and district medical societies *as are recognized by representation in their respective state societies*, and from the Medical Department of the Army and Navy, and the Marine Hospital Service of the United States.

“Each state, county and district medical society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number. *Provided*, however, that the number of delegates for any particular State, Territory, county, city or town shall not exceed the ratio of one in

ten of the resident physicians who may have signed the Code of Ethics of the Association."

It is the duty of secretaries of medical societies such as are designated in the above rules, to forward to the secretary of the Association lists of those who have been elected delegates by their respective societies. If they have not already done it they should do it *at once*.

THE JAPANESE PHARMACOPŒIA.—For a year or longer we have been receiving in exchange for the MEDICAL NEWS a medical journal published at Tokio, Japan, so that we have known that there has been in Japan, for some time, an educated, scientific profession of medicine. And while there are many Europeans, especially Germans, practicing there, there are also very many intelligent natives who are adepts in the healing art.

We learn from a late number of the *Lancet* that a new Japanese Pharmacopœia has just appeared in Japan, and it is to be hoped that an end will now be put to the inconveniences which have hitherto existed there, of there being no official standard for medicines. The chemists obtain their drugs from America, England, France and Germany, and as the preparations vary considerably in strength, all kinds of confusion arose. The new Pharmacopœia was undertaken some twelve years ago, and in 1880 a commission was appointed by the Government to carry out the work. This commission has held 155 sittings. It was found advisable to write the text of the Pharmacopœia originally in German, that being the language most generally understood by the members of the committee. The official text is, however, Japanese, and there is also a Latin translation. The number of preparations is 475, which are named first in Japanese and then in Latin. The general character of the work is similar to that of the English and German Pharmacopœias.

TOTAL EXTIRPATION OF THE UTERUS THROUGH THE VAGINA.—Although the extirpation of the uterus through the vagina for the removal of carcinoma, is a comparatively new operation, it has, in the short term of existence, shared the advance experienced by those other operations of gynecology which have been converted, of recent years, from

desperate measures to perfectly legitimate and not particularly dangerous therapeutic procedures. This point is well illustrated by the statistics of 60 operations for the removal of the uterus through the vagina, published by FRITSCH in *Archiv für Gynäkologie*, Bd. xxix. Heft 3. The mortality of the operation itself was only 10.1% and two of the deaths were hardly to be ascribed to the operation. A still more gratifying feature of the statistics is the number of women who were much benefited, some of them perhaps cured, by the removal of the cancerous womb. Of the 53 women who survived the operation, 20 remained healthy, 2 after three years, 7 after two years, 8 after one year and 3 after ten months. This is a most satisfactory result to have achieved in dealing with a disease which of itself is necessarily fatal, even should the relief afforded be but temporary, and unfortunately this may prove to be the case, for v. Hofmeier's statistics show that three years and more of apparent health may be followed by the return of the disease.

THE MEDICINE AND HYGIENE OF THE TALMUD.—Dr. Carl H. von Klein, of 110 East Second Street, Dayton, Ohio, proposes to translate and publish from the *Talmud* everything relating to medicine and hygiene, providing that before undertaking the work he receives one thousand subscribers for the book. Such subscriptions, he says, may be addressed to him in the following words:

"I, the undersigned, agree to take one (or more) copy of the *Talmudic Medicine* of Dr. von Klein, which shall not exceed five dollars in cost for five hundred octavo pages, or at one dollar per each hundred pages, payable on delivery of the work."

Under no other circumstances, he says, will he undertake the work, which must be traced from "hundreds of thousands of copies," and which has heretofore not been accomplished by any living man. No more will be published than the number subscribed for, and fifty extra copies for distribution to the principal medical journals for review.

Every intelligent physician, interested in the history of his profession, should send on his subscription without delay to Dr. von Klein. If the work should not be undertaken for want of subscribers, there will, of course, be nothing to pay.

BIRTH AND DEATH-RATE IN ENGLAND AND WALES.—The report of the Registrar General for 1885, just issued, shows that the births of the year were 32.5 to the 1,000 persons living; the lowest number recorded since 1848. With the exception of an insignificant rise in 1884, the rate has fallen continuously year by year since 1876. The male births were 455,809, the female 438,461. It is satisfactory to learn that the long-continued fall in the marriage rate has led, for 1885 at least, to no increase in the number of illegitimate births. On the contrary, the decline under this latter heading has beaten the record in the most encouraging way. The deaths of the year lag behind the births in a way that precludes all anxiety for the immediate future of the race. They were in proportion of 19.0 to the 1,000—with one solitary exception, the lowest yet recorded. Among the deaths were 63 of reputed centenarians, 19 of whom were males and 44 females. The death-rate in the urban population was 20.0 per 1,000, and the lowest on record, while that of the rural population was 17.5, a slight increase.

THE pay of the Assistant Surgeon in the Navy, for the first five years after his appointment, is, per annum, when at sea, \$1,700; when on shore duty, \$1,400; when on leave, or waiting orders, \$1,000. After five years' service, his pay becomes, at sea, \$1,900; on shore duty, \$1,600; and when waiting orders, \$1,200. There seems to be no good reason for the difference in pay for sea and shore duty.

The pay of the Assistant Surgeon in the Army, for the first five years after his appointment, is, per annum, \$1,600, and, after five years, \$2,200. For the first ten years of service, or thereabouts, the pay of the Army medical officer is somewhat larger than that of the Navy medical officer. But promotion is more rapid in the Navy than in the Army, owing to the fact that the Navy has more officers in the higher grades. Thus, of 180 medical officers in the Navy, there are fifteen with the rank of Colonel and fifteen with the rank of Lieutenant-Colonel; while, of 192 medical officers in the Army, there are five Colonels and ten Lieutenant-Colonels. The result of this is, that while in the Army it requires about twenty years' service to reach the rank of Major and full Surgeon, in the Navy it requires a little less than fifteen years to attain this grade. Taking it altogether,

there is very little difference in the pecuniary emoluments of the two services.

THE MICROCOCCUS OF PNEUMONIA.—Frankel has examined, during the last three years, the lungs of a large number of cases which had died of pneumonia, and has always found diplococci apparently identical with the well-known lancet-shaped forms already described by Talamon and Salvioli. He has never met with them in any inflammatory process of the lungs, except genuine croupous pneumonia. He has succeeded in obtaining cultures in but a few cases, but these were identical in all but two instances. They presented an almost transparent grayish-white coating upon the culture medium; would not develop at the temperature of the room, and resembled, indeed, in every particular, the culture of the sputum-septicæmia coccus. Inoculations, too, behaved in a manner precisely similar to those of this coccus, viz.: rabbits and mice died from septicæmia; dogs, chickens and pigeons shared an immunity; guinea-pigs were sometimes affected. In the cultures from two cases, as remarked, he had a different result. Neither had any effect upon rabbits, and one of them exhibited a few short rod-like bodies under the microscope, although the vast majority of the microbes possessed the diplococcus shape.—*Am. Jour. Med. Science.*

ACKNOWLEDGING A PHYSICIAN'S SERVICES.—It is so seldom that a physician receives *material* acknowledgment of his services, however valuable they may have been to an individual, that when we hear of an instance we feel like chronicling it.

We learn from one of our foreign exchanges, that, when the Emperor William of Germany celebrated his eightieth birthday, his Majesty's medical attendant, Dr. von Lauer, received the title of "Excellency" and a gift of 150,000 marks—equivalent, we believe, to over \$30,000. On the 22d ult., on the occasion of his illustrious patient's ninetieth birthday, he is stated to have received 300,000 marks—about \$65,000.

It is highly creditable to the distinguished Emperor, that at a period of national rejoicing, the skill and care of his worthy physician have neither been unnoticed nor unre-

warded. There is no doubt he felt that he was no little indebted to Dr. von Lauer for his remarkable longevity.

YOUNG'S IMPROVED SURGICAL CHAIR.—Several months ago we made brief mention of this chair. Since then we have been using one of them, and can say confidently that, as now improved, it is unexcelled for general surgical and gynecological purposes. We feel sure that professional gentlemen will prefer it to any of the other chairs or lounges that are for sale by the various instrument makers. As the price is actually lower than furniture dealers ask for large chairs similarly upholstered, no complaint can be made in regard to it. It is certainly very low.

We refer our readers to the advertisement for the various claims of superiority made for it. We advise the study of them, for they contain no exaggeration.

A PORTRAIT OF KOCH.—We are indebted to Messrs. Parke, Davis & Co., of Detroit, for an excellent picture of the distinguished discoverer of the bacillus tuberculosis, of Germany. It would be a pleasure, in our present issue, to give a somewhat detailed description of the picture, but our time is too short. We will probably do so at another time. We will state, however, that, placed in a frame, the portrait will admirably adorn the office of any physician. The profession of this country will be greatly indebted to Messrs. Parke, Davis & Co. for affording them the opportunity to secure so excellent a likeness of the great German pathologist and microscopist. According to this picture, Dr. Koch must be a very handsome man.

ANNALS OF SURGERY.—This very fine surgical journal published at St. Louis is now in its fifth volume, and has been very much enlarged. It should be taken by every one interested in surgery; it is a credit to this country; it is published every month by J. H. Chambers & Co., 914 Locust Street, St. Louis, at \$5.00 a year in advance.

THE CINCINNATI MEDICAL NEWS.

VOL. XX. No. 233.
Old Series.

MAY, 1887.

VOL. XVI. No. 5.
New Series.

Original Contributions.

Mental Impressions Solved by Pulsimantia.

BY G. P. HACHENBERG, M. D., AUSTIN, TEXAS.

To read some of the operations of the mind through the action of the heart is a subject of intense interest to the physician, the medical jurist, the alienist, and the psychologist. Upon the threshold of our subject the inquiry presents itself, how far can this be effected?

Before we attempt to answer the inquiry let us briefly examine into the light our present literature throws on our subject.

It is universally admitted that the action of the heart is influenced by mental operations. A most important feature of this cardiac disturbance is that it is perfectly independent of the will, and is so entirely beyond its jurisdiction, that no secondary force of mind can prevent it. Indeed, any effort of the kind would only aggravate the difficulty. The character of cardiac action is often complex and varied. It must be admitted with many different characters of pulse, each has its own special cause and effect. Other organs of the body are exceedingly limited in their mode of action, either in health or sickness; but it is not so with the heart. In health the heart has its own special action in rest, sleep, labor, sitting or standing, running or walking, in feasting or fasting, etc. In sickness alone, the pathologist would have us to observe over fifty different kinds of pulsations. Our medical forefathers were still more extravagant in their enumeration of the pulse. The Chinese physicians doubtless exceed

all others in the study of the pulse, and apply their knowledge of the same with such success in their prognosis and diagnosis, as to excite the great wonder of their confraternity in more civilized nations.

To avoid details, I will refer to but three principal effects of undue pulsations caused by mental influences, that must be apparent to every one.

1. There is an undue action of the heart, without ostensibly involving the capillary circulation—this we find in subjects that possess great presence of mind.

2. An undue action with capillary excitement, as manifested by the “blush of shame.”

3. An undue action with contractile influences on the capillary vessels, causing the pale look of terror on the face.

These are the three distinct cardiac disturbances out of its natural pulse curve that betray mental emotion. We will find in each physical peculiarities that at times only the most educated sense of touch, joined with the sphymograph, can detect. But, should this complication be denied, our premises on the subject would not be changed in the least. The question before us is pretty much what the temporary magnet was before Morse utilized it for telegraphing. He had in it but one very limited action to go upon, yet through the modifications of that single movement, messages are now sent to nearly all parts of the world. Even if the pulse should betray but a limited curve caused by mental influences, it is through a combination of *surrounding circumstances* that it can be often intelligently interpreted. The analogy of the magnet may not be a very good one, yet it is neither a very bad one when we take into consideration how successfully the physician can telegraph on the heart of his patient, through the patient's own mind. The physician, with his intellectuality, uses his subject much like a machine, the subject not having a will of his own in the experiment.

The absence of volition in creating these mental influences on the heart makes it appear that the will is a unit and not a complex element of the mind, as is generally supposed by psychologists, and that its cerebral habitation is not from whence the heart receives its mental influences. Todd, Carpenter and most physiologists center the former in the corpora striata, and as to the latter, the cardiac impression emanates from the medulla; considered, according to Mr. H. Spencer, “the seat of all feelings, whether aroused from

without or from within, it naturally happens that its undue excitement, in whatever way caused, produces through the vagus nerves like effects on the viscera, it naturally happens that sensations intensely painful or pleasurable and emotions intensely painful or pleasurable." Marshall Hall's opinion is that "emotion, the passions, and the sense of pain have their seat in the medulla oblongata, and act, not along the cerebral, but the true spinal and ganglionic nerves." As manifested mental influences on the heart are emotional, and being created without the will, makes it a subject of greatest importance. Spencer gives us a significant idea to our subject, in respect to the medulla. "He regards it as the seat of emotional feeling, considered as a mental state apart from the movements to which it gives rise."

On general grounds, the authorities would account for this mental cardiac relation to exist through the ganglionic cells of the pneumogastric, and with the alleged origin of the sympathetic. Kirkes and Paget "observe that the pneumogastric enters into so many anastomoses with the nerves of the sympathetic that it is hard to say whether the filaments it contains are from their origin its own, or are derived from the latter, and they regard many of the filaments originating in its own ganglia as sympathetic in character, and conclude that its action on the heart is, as its structure would suggest, like that of the sympathetic, more that of a cerebro-spinal nerve."

Dr. Daniel Hack Tuke, an eminent psychologist, says that there is "no doubt the sympathetic nerves are concerned in the motion of the heart, and the question is whether the emotions act through them, or the pneumogastrics, or both, when accelerating or retarding the movements of this organ."

But, to pursue the subject on a practical basis, I will cite a few cases that passed under my own observation.

In 1849 I had a practice in the epidemic of cholera, in Ohio. I was fully impressed that the exciting cause of the disease in many cases was mental, disturbing the equilibrium of the circulation. This I brought to a test in a case of obstinate constipation that came under my treatment at the time. The subject was a man of full habits; and, after taking some half a dozen different cathartics without effect, he got alarmed and sent for me. I found him with a full, strong pulse and flushed surface. With a grave face I felt

his pulse, shook my head, which at once inspired him with fear. He anxiously asked me what I thought of his case. "Why," I replied, "you are going to die." The poor fellow collapsed at once; he turned deathly pale. Soon I heard the glad tidings of borborygma. I gave him no medicine. I left the house for about half an hour; and, when I got back, I was told that he had an enormous passage. I now congratulated him and told him that he was all right. "But, Doctor," says he, "you said that I was going to die." "So I did," I answered; "but did I tell you when? I only aroused your fears as a powerful cathartic." It may be unnecessary to state that he never appreciated the remedy. I have repeatedly noticed that some animals in a great fright have free alvine operations.

Many years ago, I thought proper to bleed a very phlethoric country girl, for amenorrhœa associated with considerable cerebral disturbance. The object was to bleed her with the least loss of blood; but at the same time make a decided constitutional impression. Therefore, I made a small opening in the median basilic vein, and a small tedious stream of blood was made to flow. After thus losing a few ounces of blood, she asked me the expected question, how much blood I was going to take away from her. I *abruptly* answered: "Until you faint." She instantaneously fell into a state of syncope.

In my military experience, I was once requested to see a private in his quarters, that was said to be in a violent fit. By the general appearance of things, I was led to suspect him a malingerer. I at once appealed to the heart for information to learn the real character of the case. I ordered the steward, who was with me, to get the chloroform and burn a hole in his chest, at the same time feeling his pulse. As soon as I gave these instructions there was an immediate change in the action of his heart. Soon large beads of perspiration gathered on his forehead, and at the same time his struggles had almost ceased. The chloroform was soon on hand. I poured about a teaspoonful of it on his chest, and quickly placed a handkerchief over it to prevent evaporation and to secure an active, irritating effect. It was not long before an intense pain was produced. The poor fellow jumped up and cried: "Oh, hell! don't burn that hole in me." Here the action of the heart, acted upon by his own fears, revealed the character of the case.

Another case was likewise that of a malingerer, who was

said to have outwitted several surgeons of the army, who looked upon the case as muscular rheumatism. When he came under my care, the first thing I did was to have him urinate in my presence. Finding nothing abnormal in the urine, I suspected the real character of the case. Here I had one of the "*circumstances*" of the case that led me to appeal to the heart for further information. As I held on to his pulse for a little while, I, *very unexpectedly* to him, remarked: "I suppose that you think it is a very easy thing to fool doctors." As I made this remark, the pulse dropped a beat, and then reacted into a palpitation. The case was now to me a clear one; but as was my habit, I hardly ever gave a malingerer by diagnosis. I proposed treatment and ordered the steward to give ten grains of ipecac. He took the powder in my presence and left the tent. At next sick-call he was again on hand, and stated that my medicine did him more good than any other he had taken. I felt his pulse, as before, and found nothing wrong; but made a remark *that was not expected* by him, bringing him still closer to his misdemeanor as a good soldier. With a bold face, he responded: "If you suspect that I play off, Doctor, you are very much mistaken." But the pulse betrayed him again; but I replied: "Well, we take your word and continue the treatment. The steward gave him another ten grains of ipecac, which he took as before and left the tent. The following morning he was again on hand, and again complimented my practice, saying that several more doses of the same medicine would cure him for good. He told me that the medicine did not nauseate him! The case got to be interesting; and I felt that he was getting the better of me. I ordered the same medicine, and in the same quantity, which he again cheerfully took in my presence, and then, as usual, made his exit. But, this time, I got up from my desk and, unobserved to him, watched him as he walked away. He had walked but a short distance when he spit out the ipecac he had held in his mouth, on the snow. I called him back; and, before I said much to him, he volunteered to take another dose, and pretended that the present waste was an accident, and that he had intended to return for another dose. "All right," I replied; "and how do you feel?" After he had been seated for a little while, I felt his pulse, that again gave me the full outlines of the operations of a guilty conscience. I ordered the steward to give him another ten grains; but this time to have it mixed in six ounces of water! The patient

declared that he could not take it in that way. Here my patience gave way; and I sternly told him to take it or go to the guard-house. He took the solution. He never again responded to my sick-call.

On another occasion I was annoyed in learning that one of the nurses was stealing the stimulants of some patients of his ward that were intended for the night. I somewhat suspected a nurse that carried more carmine on his nose (one of the circumstances in the case) than I thought a hospital diet could produce. One morning he reported himself sick. I felt his pulse and found it calm and regular. As I held on to it, I *abruptly* asked him if he could tell me what contemptible thief was robbing, almost every night, some of the liquor intended for the sick of the ward. He said that he couldn't tell; but, at the same time, the man was betrayed by the action of his own heart. I held on to the pulse and extended the experiment, saying, "I wish you would give this matter attention and find out the thief." He said that he would; the action of the heart still increasing in its force.

I had at my fingers' ends an incontestable proof of his guilt. For a moment I held his wrist in silence (placing him in a most painful suspense) and then gave him the final shock in charging him with the crime. The pulsation became intermittent and depressed, and the efflorescence of his face faded under the influence of terror. He bluffed me off with such a vehement denial that I began to suspect that I might be doing the man a great injustice; for then my confidence in pulsimantia in reading the operations of the mind was not as strong as it is now. But I afterward took in this adroit knave with a little tartar emetic in whisky, which he thought was intended for a patient. Without the tale-telling of this man's heart, I, in all probability, would never have confirmed my suspicion of his crime.

To cite these cases, I thought I might solicit the attention of the medical profession to the action of the heart in criminal subjects. As far as my experience has gone in this matter, in my military practice in particular, I am fully confident that the sphygmometer can be made to take the first and highest place in medical jurisprudence. In court, no cross examination, no conflicting evidence, could impair the value of a testimony established by a careful sphygmological experimentation conducted by an experienced medical jurist, or rather a professional pulsilogist. But to introduce pulsimantia to promote justice, and to employ it as a most pow-

erful means to detect crime, we may, at times, have to overcome many difficulties, to bring it to a satisfactory issue. But these may be successfully met by experience, tact, and, in particular, taking into consideration all the incidental circumstances of the case. To bring the sphygmie art into our courts of justice is to introduce an infant, but with capacities and indications of arriving to full stature. Nervous irritability on the part of the culprit may be the greatest obstacle in the way. But, fortunately, such a temperament in sanity is not strongly given to crime; but where we have to do with it, the subject has to be calmed down by a bland and easy examination by the prosecuting attorney, or the pulsilogist himself. Special care must be taken in this part of the examination, not to give the subject the least chance to swerve from the path of truth. This preliminary step should hardly be called an examination, but simply a conversation, which should be on a subject foreign to the charge against him. When a perfect calmness of the mind is thus secured, suddenly a startling question, in regard to the crime, is propounded. In all these proceedings the culprit should remain in an easy sitting position, with his pulse under observation. Let us assume that he is guilty of the crime he is charged with; it matters little what his nonchalance would be, he would have no volition to control the emotions of his heart, that by skillful management would betray him.

The tongue, under his will, may be false; but the heart, not being under its bondage, is true to itself and knows no deception. It is only for us to learn its language, which bears no other tale than the man's own conscience.

It is impossible to go into any details of this intricate subject. It is like the treatment of the sick, each case must have its own special treatment. I would here state that where a single test throws some doubt on the case, it is well to repeat the same experiment even repeatedly; but the *culminating question* suddenly propounded, better not always be in the same form. If these experiments are repeated several times, at different periods, with like results, we can take the test as a conclusive testimony. "A sensory impression, registered in the cerebral hemispheres" in the perpetration of a crime, will, in spite of the will, expend its emotion on the heart (for every deliberate crime is an emotional event), the effects of which may be reproduced at any subsequent time, by exciting a sudden unexpected attention to the same, in particular, when tempered with fear and anxiety.

Perhaps in no case can the pulsilogist render more important services to justice than in the examination of important witnesses. In such cases, let the witnesses make their statements with the pulse under observation; and when this is skillfully executed, there is no doubt that perjury can be detected.

But, if the action of the heart can be made to prove the guilt of the criminal, will it likewise serve to establish the innocence of the accused? We think it will; but mainly by negative results. In the examination of such, there may be palpitation, as in the guilty; but, as Tuke says, "When, however, we speak of the same result being produced by opposite emotions, we find, on closer examination, that this sameness applies to the frequency of the pulsations rather than to their character; that the palpitation of joy is of the nature of increased vital action, that of terror is simple irritation, and no sign of power."

"We are all conscious of the
Sensations sweet,
Felt in the blood, and felt along the heart"

of the honest and innocent man. *Cacteris paribus* in the prosecution of the cardiac investigation of the innocent man, the sequelæ tend to a normality. In the criminal, on the contrary, the circulation is characterized by irregularity and irritability. Evidently, those that are old in crime have intermittent pulsations, aside from any test examinations. Their emotional life would lead them into that condition. Speaking of intermittent pulse, Dr. Richardson observed: "I have never met with a case in which the disorder was not sequential to some anxiety, shock, fear, sorrow, or their similars."

But there is such a thing as a man committing a great crime, where sphygmocopy will fail to render any positive proof of the same. This is the case with irresponsible criminals—those who are insane. As the original impression of the crime committed was not made on the mind, as stated above, it can not subsequently become an emotion of the heart. Still, we attach great importance in applying the sphygmie art in these cases, if only to render a differential diagnosis. "Dr. Rush is reported to have discriminated feigned from real insanity by the relative rapidity of the pulse."

"An irregular influence of the vital spirits on the nerves

of the heart renders its movements at one time excessive, at another enfeebles them."—UNZER.

"Great thoughts come from the heart."—VAUVENARGUES.

"Instinct is innate in the beast; it emanates from within the internal organs of life; it acts without the concurrence of the brain."—TUKÉ.

Relation of Physicians to Life Insurance.

BY JAMES FARRAR STONE, A. M., M. D.,

Lecturer on Physical Diagnosis in the Medico-Chirurgical College of Philadelphia.

Read before the Philadelphia County Medical Society.

IN the year 1859, the regular life insurance companies of the United States, reporting to the New York Insurance Department, had in force, in round numbers, 50,000 policies, representing a total insurance of \$140,000,000. At the close of 1882, according to the same authority, the number of policies in existence exceeded 660,000, insuring more than \$1,600,000,000. During last year, these companies, thirty in number, issued about 92,000 new policies, and distributed among their policy holders or their representatives over \$52,000,000—an average of almost \$150,000 for every day of the year, Sundays included. Nor do these figures, large as they are, fairly measure the growth and extent of this business.

Within the period covered by these statistics, and not included in them, new forms and methods, calculated to bring insurance to the notice and within the reach of all classes in the community, have been devised and introduced with such success, as to make it altogether safe to assert that but a moiety of the volume of business, and a yet smaller proportion of the persons carrying insurance of some sort, is represented in the returns quoted above.

Under what is known as the Prudential or Industrial system, it is possible for the laboring man, by the payment of a weekly pittance, to carry on every member of his family above two years of age, policies of insurance, differing only in amount from those issued by the regular life companies. Hundreds of thousands of such policies have been issued within a few years, and the number is rapidly increasing.

Co-operative societies, though by no means a novelty in

insurance, under the taking, but fallacious, cry of "cheap insurance," and by a skillful and exaggerated parade of the defects and failures of the "old line" companies, have attained of late a wide-spread popularity and an astonishing growth. Accurate statistics as to their membership are lacking, but the true figures, could they be given, would doubtless exceed the largest estimates.

And what of the future of this business of life insurance, which has reached such gigantic proportions in a period so marvelously brief? Having come to this growth so speedily, has it already passed its maturity, and is it destined to as speedy a decline and collapse? Such is not the judgment of those best qualified to speak on this question.

Whatever may be the fate of unsound and speculative experiments—and that fate is neither uncertain nor remote—legitimate insurance is fraught with too many advantages, positive and self-evident, and has too often proved its power to help in time of need—when other help was not—even to fall into disuse among a people who have once experienced its benefits. Indeed, speculation on this point is idle.

This institution, which had its birth in the eighteenth century, is still but a child in the nineteenth, while all signs point to a coming manhood, beside whose vast proportions the developments of to-day shall seem puerile indeed. The day may come (why not?) when the voice of the agent shall no longer be heard in the land, because there will remain none unconvinced of the duty and privilege of life insurance. In that day every prudent citizen will as naturally insure his life, as to-day he does his property, and not to be insured will be regarded as *prima facie* evidence of an unsound body or an ill-balanced mind.

So potential a social factor is worthy the careful study of every thoughtful man. As conservators and promoters of the physical, and by necessity also of the moral, well-being of the community, physicians are especially called upon to decide what their relations to it are or should be. Because the relation of the medical profession to life insurance, as an institution, is seldom publicly discussed, and because I deem the connection both intimate and important, I crave your indulgence while I refer, as briefly as possible, to this portion of the subject.

My first remark, in this connection, is that life insurance was, in its origin, essentially an outgrowth of medical science. The idea of insurance may be traced among the ancient

Phœnicians and Israelites, and is probably coeval with the establishment of settled communities, but the application of it to human life is a modern invention. Nor is the lateness of such application a matter of wonder. How chimerical must have seemed the notion of founding a business enterprise on that most uncertain of chances—the length of an individual life. Whose brain it was that first conceived the thought, we do not know, but we do know that until the law of the absolute uniformity in the average duration of life, when large numbers are compared, was demonstrated, life insurance, as a science or a business, was an impossibility.

The mortuary records and observations which furnished the data from which this law, the corner-stone of life insurance, was at length deduced, were mainly the result of the labors of the medical profession.

Dr. Allen, in the introduction to his work on "Examinations in Life Insurance," well says: "It [life insurance] has its very basis and foundation in the established laws of mortality, as carefully and patiently worked out by medical men. The first life company was only started after Dr. Halley, of London, had made that series of observations regarding the duration of human life, out of which grew the 'Breslau table of mortality.' Every important step in life insurance has been preceded by a pioneer corps of physicians, who have carefully marked out the way, and, in no single instance, has future experience proved the falsity or unreliability of their conclusions."

Not only is this true of the past, but life insurance is still dependent upon medical aid for its safe existence and healthy growth. If every person who passes the office door of a company could be insured, it might be safe to dispense with any medical test, for, in this way, the average health of the community would be represented in its risks. But if the doors were thus freely opened, who does not know that the old, the halt, the maimed and the blind would crowd its friendly portals, while too many of the young and vigorous would pass carelessly by on the other side. To protect itself against this adverse selection the company invokes the aid of the physician. It will need his aid until human nature changes, or every one insures.

The medical profession may well be proud of their share in originating and preserving so beneficent an institution. Whatever mistakes or frauds have impaired its usefulness

or brought discredit on its name, none are chargeable to their fault or faithlessness. The wildest schemes, the most brazen-faced impostures, find it necessary, in order to obtain a hearing, to employ medical examiners, and to pretend conformity to the laws established by medical experience. The physician has need to be on his guard, lest he unwittingly lend his influence to unworthy schemes in accepting an appointment, as medical adviser, in a company of whose plan and character he is ignorant. Many reputable medical men, in this State, have been seriously compromised by their connection with the infamous "death-bed" insurance concerns, now happily in the final throes of dissolution. In consequence of unfortunate experiences, not a few have altogether lost faith in insurance, and include all organizations in their unqualified denunciations. In spite of the wrecks, marring the whole history of insurance, carrying loss and suffering into so many homes—in spite of the frail crafts, now venturing forth in such multitudes on the alluring, but treacherous, seas of voluntary assessments, with no adequate safeguards against the slowly swelling billows of mortality the lapsing years are sure to raise—whose voyage must end in shipwreck, if there be any reliance in the warnings of experience, any truth in mathematics or any permanence in human nature—there is yet, I maintain, good and sufficient ground for confidence in the safety and stability of legitimate life insurance. Moreover, I claim it to be the duty of every physician, as it certainly is within his power, not only to discriminate between the honest and the fraudulent enterprises, but also to determine which among the former are best worthy of his support. This he should do for his own sake, and quite as much for the sake of those who will be influenced by his example.

Nor is this so difficult a thing to accomplish as many suppose. The hue and cry that has been raised over exceptional instances of corruption and mismanagement, has attracted too much attention to unfortunate details. The dust of dispute over minor points has blinded the eyes of many to the grand results accomplished. A study of its record ought to silence every caviler and convince every honest doubter of the beneficence and reliability of true insurance.

But what are the marks by which legitimate insurance may be recognized?

Although by no means an expert in this part of the sub-

ject, I shall venture to mention a few of what seem to me to be useful points in the diagnosis. It will be understood, of course, that I am not speaking of any special company, but of the kind, or plan, of insurance worthy of confidence. Similar tests, however, are available to decide upon the merits of an individual company.

The first test I would apply is that of *longevity*. No man cares to insure in a company likely to die before himself. No man ought to insure unless convinced of the stability of the organization assuming his risk. How shall this point be determined? Theoretically, no human enterprise has a surer basis. Death is the one certain event in life, and, out of many lives, the number that will die in any year can be foretold with an accuracy pertaining to scarcely another future event: 100,000 persons, ten years of age, will live a definite number of years in the aggregate; of the 100,000, 85,000, in round numbers will be living at the age of thirty; of these, 720 will die before reaching thirty-one; at forty, 78,000 will be alive, and 765 will die in that year; at fifty, 962 will die out of 70,000 survivors; at sixty, 1,546 out of 58,000 who are left; at ninety, the mighty host has dwindled to a forlorn hope of 847 veterans, almost half of whom will pass away before their ninety-first birthday. It will be seen, from this table, not only that there is a definite mortality for each year, but also an increasing ratio of deaths with advancing age. Provision must be made for this, or there can be no guarantee of permanence.

The problem of a sufficient rate of premium is a purely mathematical one, embracing estimates for expenses, rates of interest, etc., as well as the mortality rate, and need not detain us further. The point to be insisted on is that *some adequate* provision shall be made to meet this inevitable experience. No company that fails to do this is worthy of the name it assumes.

But theory is one thing and hard facts quite another oftentimes. "By their fruits ye shall know them," is as good a test in insurance as in morals.

What is the testimony of history as to the longevity of companies which have made proper provisions for increasing mortality? Of the three life companies first formed in England, more than 160 years ago, two are alive and sound to-day. In this country the oldest companies are the largest and strongest, with hardly an exception. It will be urged, this may all be true, of surviving companies, but it does

not take into account the multitudes founded on the same principles which have perished, leaving wide-spread losses and bitter disappointment. The fact of failure, the worse fact of fraud, in numerous instances must be admitted. No human institution can claim exemption from this experience. But a wide survey of the field deprives this fact of any weight as against the system.

In view of the gross exaggerations persistently dinned into the public ear from unworthy motives, this well authenticated statement may seem incredible: "Taking all companies, good, bad and indifferent, into account, it is claimed that *less than one per cent.* of all the money ever invested in life insurance in the United States has been lost through mismanagement, dishonesty, failure or other cause." What business can make an equally favorable exhibit?

Another test is the "expenses of management." The State Insurance Reports offer a ready and authoritative means of ascertaining exactly what these are in any regular company. According to the report of the Insurance Commissioner of Massachusetts for 1883, the ratio of expenses to "mean amount insured" in all the companies doing business in that State in 1882, was .79 per cent.—less than one per cent. The expenses of some of the largest and oldest companies in this country, from their organization to the present time, have averaged only about twelve per cent. of their receipts. The following summary, compiled from the sworn reports of twenty-three American companies from their beginning business to January 1, 1883, presents the facts in a more striking light:

The whole amount received from policy holders,	\$1,075,000,000.
Paid back to policy holders,	782,000,000.
On hand and invested for policy holders,	429,000,000.
Total paid back or available for policy holders,	1,211,000,000 or \$136,000,000 in excess of the premiums received after deducting all expenses.

Out of this excess, it is estimated, could be made good to every individual his actual money loss through all the failures of regular insurance companies in the United States, and that too without impairing the reserve of the surviving companies.

Still another test is the fairness and promptness with which death claims are paid. No one wishes to bequeath to his family a lawsuit as an appendage to his policy. Yet the fear of this very thing haunts the mind of many a man as he

reads the comments of the press upon some suit in the courts over a contested claim. How groundless is such a fear may be seen from the fact that not one policy in one hundred that become claims, is resisted or compromised in any way. In the interest of good morals, as well as in behalf of the rights of policy holders, some claims ought to be disputed. The danger lies now in the opposite extreme.

The only other test, to which I shall allude, is the contract or policy offered as the basis of insurance by the company. Insurance is a commodity, and like any other purchasable article may or may not be worth the price asked. The man who buys without examination has only himself to blame, if he finds himself possessed of what he does not want. It is astonishing how careless men often are in the matter of insurance, who in other transactions are notably shrewd and cautious. They will invest their money on the mere word of a glib talker, taking little or no pains to verify or disprove his assertions, and then even neglect to read the contract to see if it contains what was promised. No agreement which leaves, in any doubt, the amount and guarantee of insurance, or its cost, is deserving the name of a policy. Yet one or both of these essentials are lacking in many so-called policies of insurance.

In the past grievous, and too often well-founded, complaints have been made of the restrictions and technicalities, on account of which policies have been forfeited, and the savings of years confiscated without redress. But, like many another evil, this has worked its own cure. No one hereafter needs to suffer loss on these grounds. It is possible to obtain a policy which will not only protect the owner against injustice in case of inability to fulfill his obligations, but which will contain within itself, in actual figures, the sum which he is entitled to receive in cash, or in paid-up insurance, in any year in which the policy shall lapse through non-payment of premiums for any cause whatsoever.

I need not dwell upon the argument in favor of insurance as a promoter of habits of thrift, or dilate upon the beneficent results to the general weal, in providing for the support of so many dependent ones, who would otherwise become a burden to the community. Although these are excellent reasons why the attitude of physicians should be a friendly one toward the institution, they are too familiar to require repetition. I will only call attention to the fact that medical men profit directly and largely in the payment, from *the*

proceeds of policies, of professional services, which would otherwise be unrequited.

¶ Important contributions to vital statistics may be confidently anticipated from the rapidly accumulating mortuary experience of the companies. These records are kept with a care and accuracy unattainable elsewhere, and the deductions drawn therefrom will be correspondingly valuable.

Already it has been demonstrated that the average longevity in civilized countries is gradually rising. The experience of American companies seems to be slightly more favorable than the British, but it would be premature, as yet, to conclude that this is due to greater longevity in the community at large. Indications point to a slight decrease in the ratio of deaths from phthisis, and an increase in those due to kidney affections. That greater results have not already been reached is owing to the brief time and limited experience covered by the records. These observations must throw light upon such questions as the greatest duration of human life, the geographical distribution of diseases, the effects of race, occupation, hereditary tendencies, and physical condition and configuration, and many kindred topics.

With respect to the special relations the physician assumes in becoming the medical examiner of a company, and his duties in that capacity, time is left only for a most general and cursory glance. It is at once the most practical and difficult part of my subject. To treat it adequately would require hours instead of minutes.

Regarding the ethical relations of the position, it is evident that he owes paramount allegiance to the interests of the company whose officer he is. The well-being of the company—and by this term is not meant any corporation, but the whole membership constituting it—demands the maintenance of a longevity at least equal to that of the general population. Under present conditions, those seeking insurance fall below that standard. This adverse selection the medical officer is appointed to prevent. To fulfill this trust he must weigh every candidate in the scales of physical fitness alone, and be blind to every alien consideration whatsoever. But, while thus loyal to the company, he must not lightly regard the claims of the applicant. To deny to any man the privilege of insurance is never a trifling thing, and it may be a serious and lasting injury. It becomes an outrage if based on any improper motive.

It behooves the examiner for *his own* sake to make no mistake. His verdict is sure to be reviewed, if not by the examiner of a rival company, at least by the candidate's private medical adviser. In the latter case a reversal of his judgment may generally be anticipated, no matter how manifest the disqualification. He should cherish no resentment against his brother practitioner on this score, however, remembering how prone we all are to prophesy smooth things to our patients.

How shall we decide, in view of the conflicting claims of the applicant and company, those border-line cases which so often arise? But one reply can be given. When doubt remains after full investigation, always give the company the benefit of the doubt. When compelled to deny an application for insurance, the examiner may occasionally render a more than compensating service to the candidate, by revealing his timely discovery of an unsuspected disease, amenable to treatment in its early stage. Many valuable lives have thus been saved or prolonged, and it is worthy of mention as an incidental benefit of insurance examinations.

The relation of the examiner to the agent ought to be, and generally is, one of co-operation, yet of absolute independence. The aim, the true interests of both are identical, however they may sometimes seem to clash. But the motives that sway the one must never be allowed to influence the judgment of the other. Their mutual action—to illustrate a small matter by a great—may be likened to the centripetal and centrifugal forces, whose resultant motion is the smooth and noiseless sweep of the planets in their orbits. So the agent and the physician, working harmoniously from different directions, give impetus and safety to the chariot of insurance.

The last topic on which I shall touch—and I can not do more on this occasion—is the important one: How can the medical examiner best discharge the practical duties of his office? The first and obvious answer is, by having a clear conception of what those duties are. In general they may be comprised in the obligation to recommend none but healthy lives for insurance. But inasmuch as perfect health is a condition most rarely, if ever, met with in actual experience, it is evident that something less than this ideal standard must serve for his working rule. What shall it be? Some companies have solved this problem by establishing a sliding scale, according to which all risks are graded into

classes, extra good, good, fair or average, and poor. Others encourage the examiner to report mainly on the physical condition and habits, leaving points of hereditary influences, and other general questions to be decided at the home office. This plan relieves the local examiner of a certain amount of responsibility, and has the apparent advantage of referring to experts the weighing of points upon which the average medical man has had but little experience. As the whole application comes under the review of the medical board in any event, it may be questioned whether the judgment formed from personal contact, in view of *all* the circumstances affecting the risk, is not of more value to the company than one with certain elements ignored.

I can not do better, just here, than to quote the formal question, closing the medical examiner's certificate on the application of a prominent company: "Is the person, in your opinion, as good a life for insurance as the average of persons of *the same age, who are of sound constitution, in good health, and whose family history is good?* and do you, acting in the interest of the company, advise the acceptance of the risk?"

To my mind this is the most fair, logical and comprehensive statement of the object of the examiner's work with which I am acquainted. To answer the question fairly requires a balancing of all circumstances affecting the life favorably and unfavorably, and an unqualified decision upon the relation of the risk to the standard assumed. With a clear conception of the purpose of his examination, the physician will do well to remember that the applicant for insurance stands in a relation the very reverse of that occupied by a patient. The latter comes for relief, and is ready to aid, so far as he can, in the discovery of his ailment. The former approaches with the assumption of health, and the examiner must detect, unaided, any fallacies in that assumption. The task is, not frequently, made vastly more difficult by the deliberate purpose to gain the end by deceit.

The application blanks of different companies, while covering virtually the same ground, vary greatly in details and in the prominence given to special points. It would seem to be entirely practicable, and would certainly be a gain in obvious respects, if all companies would agree upon an identical form. Formerly the answers to questions, covering the family and personal history, were filled out by the agent. The tendency is now to include these in the ex-

aminer's certificate, as is most proper. The application is the basis on which the insurance is granted. It contains, in the vast majority of cases, the only information accessible to the company, on which to judge the character of the risk. In filling it out, the examiner, with this fact in mind, will endeavor to make it a truthful and complete description of the applicant and his environments, as he sees him. A golden rule to be observed is brevity in noting normal conditions, fullness and clearness in describing abnormal states.

The order usually outlined on the blanks is both the natural and philosophical one. It is, first, the personal history; second, the family history; lastly, the personal examination. Much depends upon the tact and perseverance of the examiner in eliciting information of value under the first and second heads. Successful cross-examination is an art to be mastered only by much practice.

One of the knottiest questions to answer satisfactorily, in many instances, is that respecting the applicant's use of liquor and narcotics. The importance of the information sought is commensurate with the difficulty of obtaining it. According to Neisson's statistics, as quoted in "Parkes' Hygiene," "In intemperate persons the mortality at twenty-one to thirty years of age is five times that of the temperate; from thirty to forty it is four times as great, becoming gradually less with advancing age."

As total abstainers are, unfortunately, as rare among insurance candidates as in society at large, the question as to a temperate or intemperate use of liquor comes up for decision in almost every case. But what is a temperate use? "To some"—I quote from an English writer on insurance—"a question of the quantities in which, and frequency with which, a stimulant is consumed. To others, of ability to take large quantities without apparently losing control of their faculties. To the expert—who knows that to a very large proportion of human beings the smallest use, except as medicine, is injurious, and that what to a large class of men appears to be moderate indulgence is too great to remain without effect in seriously perverting nutrition—a very different question. Whatever may be our doubts as to the injurious effects of small quantities of narcotics and stimulants upon the system, we should have little hesitation in declaring that when they are long used, and in large quantities, they must, in the vast majority of

cases, impair health and shorten life, so that a life so exposed needs higher rates."

Practically, then, it is not sufficient to trust to general statements, but it is important to learn just how often and in what quantities stimulants are taken. With all possible care, the examiner will sometimes be most egregiously deceived.

The family history presents difficulties, often insuperable, in the lack of knowledge of the causes of death among the immediate relatives. When we push our inquiries a generation further back it is remarkable how little the average citizen can tell of his grandparents. Yet much may be learned or excluded by persevering inquiry. It is worth the effort, if it be true, as Ribot asserts, that "Longevity depends far less on race, climate, profession, mode of life, or food, than on hereditary transmission, * * * and will assert itself above many influences generally fatal to a high average duration of life."

It is in the physical examination that the best work of the examiner is demanded. Closeness of observation, system, thoroughness, accuracy, must be his watchwords. He must insist on favorable surroundings, quiet and privacy, on time sufficient for examination without haste, on repeated interviews when needed, and, above all, on entire freedom from outside pressure or dictation in making up his verdict. He owes it to himself, and to the trust confided in him, to keep fully abreast of the advances in medical knowledge, that he may avail himself of every means likely to throw light upon the difficult task required of him. He should be familiar with the various "instruments of precision," that he may employ such as may be of service in detecting obscure morbid conditions. But his whole duty is not fulfilled in the recognition of existing morbid states. It is required of him to detect latent tendencies to disease, to foresee the coming evil in the shadow it casts before, to apprehend the signs which betoken the threatened tempest. What wonder, then, if he often fails in the accomplishment of such a task? No man, I verily believe, ever long occupied this position without acutely realizing the limitations of human knowledge, the inadequacy of his ability to read aright the premonitions of decay—nay, even the certainty of his failure, now and again, to discover existing evidences of disease. His experience would be different from mine who never meets on the streets men, vigorous and strong,

whom years ago he rejected as doomed to premature decline; or who can not recall others whom he accepted without a misgiving, who, too soon for his self-complacence, succumbed to influences which he failed to detect.

It is no flowery bed of ease, this post of insurance examiner, where one may betake himself to peaceful slumber after receiving his fee. Ghosts of his old mistakes are likely to visit his couch at most unseasonable hours, and at any moment he may be rudely disturbed by the untimely demise of some recent risk he had rated as extra good.

There is left for the conscientious examiner, at least the approval of his own conscience for work faithfully attempted, and the assurance that his labors, with those of his compeers, have thus far successfully accomplished the purpose intended.

What, then, have been the results of the medical examination of lives, as tested in the experience of American companies? In general the medical selection may be said to effect a diminution in the death-rate among insured lives as compared with the whole population, which continues at a lessening ratio for about six years, after which its influence disappears, and the mortality approximates that of the community at large.

Three propositions are regarded as established in the experience of the largest American company:

1. That the advantage of selection diminishes at all ages with the duration of the policy.
2. That it decreases very rapidly among those who insure at the younger periods of life.
3. That it decreases more slowly at middle life and among older insurants, and probably never entirely disappears.

PULVERIZED SPLEEN IN CHLOROSIS.—The German medical papers quote some observations made by Dr. Predazzi at Prof. Maragliano's request, on the value of treating chlorotic patients with an emulsion of pulverized spleen, bitter almonds and brandy. In the five cases in which this was adopted, rapid improvement took place both in the general condition of the patients and in the physical signs; that is to say, the number of red blood-corpuscles was increased, as also arterial tension and the body weight. The author does not attempt any explanation of the action of this singular remedy. The quantity of "polp. splenic." given daily was about five ounces, and it was ordered at meal-times.—*Lancet*.

Selections.

Puerperal Eclampsia.

BY DR. LAPHORN SMITH, MONTREAL, CANADA.

AS THE elements of doubt as to the ætiology of this disease are being gradually eliminated, and as the mechanical nature of its origin, which was not long ago scarcely entertained, is being more generally adopted, I propose to make the following case the text for a brief discussion on the *nature* of the phenomenon, with a view to laying down, somewhat dogmatically, a certain principle of treatment. This I think I am able to show, even within the limits of a very short paper, we are fully warranted in doing, and if such a thing can be done, it will materially help many of us younger men, who have often to be guided by the experience of others who have not always very distinctly told us what their experience was :

Mrs. M., aged twenty-eight, married at twenty-four, had her first child a year afterward. Two years after marriage she became a widow, and remained in that condition until nine months before I saw her, when she was married again. She became pregnant the next month, and when she had reached the seventh month, or a little latter, I was engaged to attend her in her confinement. As I was informed that her feet were beginning to swell, I asked for a sample of her urine, which on examination appeared clear when warmed, but very muddy on cooling, and was found to contain no sugar, but was loaded with albumen. On examining her next day I saw that her legs were full of dropsical effusion ; the labia were so swollen with liquid that she was unable to sit down ; her bowels were confined and urine very scanty ; she had occasional slight headaches ; no disorder of vision nor of intellectual faculties. She had no trouble whatever with her previous confinement, and felt quite well during the first six months of this pregnancy, but her abdomen was so large that I suspected twin , especially as another case of eclampsia which I attended also occurred in a twin pregnancy. I gave her cathartics and a mixture of squills and digitalis, and placed her on a strict milk diet. As this failed to ameliorate her condition after

a week's trial, I changed it to digitalis and iron, with no better result. As she was rapidly getting worse, and toxic symptoms began to manifest themselves, I began to consider whether it would not be better to induce labor and empty the uterus. For I believe, as I shall show later, that the albuminuria and uræmia are due to the passive congestion or inflammation of the kidneys, caused by mechanical pressure on the renal veins by the enlarged uterus. Before taking, what I then thought was a very important step, I availed myself of the experience of my friend and colleague, Dr. Kennedy, who agreed with me as to the necessity of taking action, but who thought it better, on account of the enormous distension of the genitals and the occlusion of the passage, to make one final effort to reduce the amount of exudation of the skin. We accordingly gave her forty grains of compound jalap powder night and morning, which produced about a quart of watery evacuations daily, and a quarter of a grain of pilocarpine every four hours, which, however, produced no effect whatever on the skin. As I feared that convulsions would come on before long, the amount of urine passed not exceeding a gill daily, I left a bottle of A. C. E. mixture with the nurse, with instructions to use it if they came on. She gradually grew worse until about two weeks from the time I first saw her, when the accumulation of the toxic agent caused an explosion of convulsive movements of the most violent description, which were, however, easily controlled by the aid of the anæsthetic. Dr. Kennedy again met me in consultation that afternoon, and we decided that prompt action was imperative; so we rendered her completely unconscious, dilated the os with the finger, and without much difficulty delivered her of a living and dead foetus—the former by the forceps, the latter by the feet. There must have been nearly three gallons of amniotic fluid. She rallied well and felt much relieved, but an hour later the convulsions returned with increased severity. She remained quite unconscious all the evening until eleven o'clock, when she was induced to swallow twenty grains of chloral, which was repeated three times during the night, with the result that the convulsions ceased at three o'clock next morning, and did not since return. But she did not remember anything of what occurred during the time, commencing two days before the convulsions began and ending a week after delivery. Her vision, especially, remained very disordered, not being able to see *distinctly* the things

which she did see, and believing that she saw many objects which did not exist. For instance, she was quite sure that she saw a little boy standing on the bureau breaking dishes. Three days after the delivery symptoms of puerperal mania became very marked. She asked for a knife with which to kill a man, whom she supposed to be in an adjoining room, and it required the united efforts of three people to keep her in bed. During all this time the kidneys continued to act very freely, as, indeed, they began to do an hour or two after the uterus had been emptied. On the seventh day she became so violent that it was no longer safe to keep her in the house, as neither chloral, morphia nor atropia had any effect. On the eighth day I gave her a large dose of bromide of sodium, after which she began to talk in a rational manner, saying that the medicine had done her good, and inquiring as to the nature of her illness, and how long she had been ill. Unhappily this improvement only lasted a few days, and shortly afterward she again became so violent that I was constrained to order her removal to Longue Pointe Asylum, where she now is, after a year's detention, a lunatic. Her features have completely changed, and although quiet and docile, she evinces many of the characteristics of puerperal mania. She can not bear to see her husband or any of her former friends, although she does evince pleasure at the presence of her little boy. What is being done for her cure I am unable to say, but I fear that her recovery is at least doubtful, at any rate remote.

Sir James Y. Simpson was of the opinion that puerperal mania was the direct result of the temporary disease of the kidneys, and although many able authorities differ with him in this view, I am inclined to believe that the mania is an evidence of the co-ordinating cells of the nerve centres having been bathed for a considerable time in very poisonous blood, and that the relation of albuminuria, uræmia, puerperal convulsions and puerperal mania may be stated as follows:

A moderate amount of renal congestion causes albumen to appear in the urine.

A greater amount of renal congestion causes the albumen in the urine to increase and the normal quantity of urea in the urine to diminish, and at the same time the urea being retained in the blood and bathing the nerve centres causes headache, disordered vision, etc.

A still greater amount of urea in the blood and of albu-

men in the urine causes poisoning, and at the same time starvation of the nerve centres and dropsy of the brain to such an extent that irritation is set up and convulsions ensue.

And if this condition continues for a considerable time, the nerve cells are seriously altered in nature, so that even when the cause is removed they can with difficulty or not at all recover their normal functional activity. But as no one can tell just how a certain poison produces a certain effect, I am willing to leave that still in the realms of theory, in order to return to certain definite facts, which now seem to me to be beyond any possible doubt. And the first conclusion I have come to after a close study of some twenty authors' observations is, that puerperal convulsions are not different from uræmic convulsions, and that they depend entirely upon uræmia and its concomitant, albuminuria, and accompanying œdema and uræmia of the brain. That the uræmia of the puerpera, unlike ordinary uræmia, depends on a removable cause, namely, pressure on the renal veins, or on the veins into which they empty. This is the opinion of many eminent authorities, and the one which is best supported by facts, notwithstanding some slight exceptional evidence to the contrary. One of the most significant of these facts is that the convulsions come on always during the latter half of pregnancy, and are more frequent and more severe the larger the uterus becomes. Also, that they are more frequent in twin pregnancies, as seen in my second reported case, and also in the subsequent history in my first reported case, who narrowly escaped having them in her next pregnancy, which was a twin one.

Another strong proof of their mechanical origin is, that they are much more frequent in first pregnancies, when the abdominal walls are most resisting and where, consequently, the pressure on the veins is greatest. That we get many of the same symptoms in men, or in non-pregnant women, if from any cause the current of blood out of the kidneys is retarded, as, for instance, in mitral regurgitation; only in these cases the patient dies before the uræmia becomes sufficiently marked to cause convulsions. The fact that the urine begins to be secreted generally immediately after delivery; the only exceptions being when the kidneys have been damaged beyond repair.

The guiding principle of treatment which I wish to lay down dogmatically is this: That, unless for grave reasons to the contrary, we should induce premature labor at any time

after the seventh month at which we find the urine of the pregnant woman loaded with albumen or considerably deficient in urea. By freely accepting this course it removes all doubt and hesitation in our treatment of these most anxious cases. The induction of premature labor at the seventh month, or even earlier, is a procedure totally devoid of extra danger to the mother, and it gives to the child quite as good a chance of surviving as to allow it to run the gauntlet of a much more tedious labor at full time, when its own system is in a state of uræmic convulsions as well, and when, perhaps, it must be born under conditions and surroundings the most favorable. That the child in utero suffers from uræmia just as much as the mother is amply proved by cases reported by Cazeaux and others, and our experience is that few children born during puerperal eclampsia ever survive their birth very long. In my first case the child died during the convulsions, and although I controlled them and saved the mother, it is probable that her life was purchased only at the price of the child's, for if it had not died, and she had gone on increasing in size as I then (and I now think, mistakenly) intended to let her do, nothing, I believe, could have saved her. If I had followed this course in my second case, which I now report, I do not think that the mother would now be in the asylum, and perhaps one or both of her children would be alive.

Heretofore we have been left to interfere in these cases, and the rule has been to try to carry them on to the ninth month by medicinal and other treatment. But we should remember that every day the uterus increases in size the disorder of the kidneys becomes greater; and the longer we delay interfering, the danger of interference becomes more serious; for the reflex irritability of the nerves becomes such that the slightest irritation of the periphery causes convulsive impulses to emanate from the centres. We should also remember that, owing to the mechanical nature of the malady, we can not count upon the co-operation of diuretics, for even digitalis, the king of diuretics, often fails us in these cases. And no wonder, for how can a medicine which only increases the secretion of urine, because it contracts the capillaries of the kidneys and increases the flow of blood through them, have any effect when the current of blood is dammed back by the constriction on the veins.

Puerperal uræmia, if left alone, is a very serious disease, as instanced by a mortality of twelve cases out of thirty-six

reported by Braun, although that mortality is higher than we are accustomed to here. Wieger also reports a mortality of twenty-five out of sixty-five cases. In urging interference, I may be advocating something that many practitioners are already in favor of doing, but when such eminent names as Gooch, Schroder and Playfair are on the side of letting alone, I think that if the policy of prompt interference is the right one, as I believe it is, it is quite time that some definite law on the subject should be laid down for our guidance.—*Canada Medical Record*.

Extracts from Dr. Cohen's Article on Gaseous Enemata for the Cure of Pulmonary Tuberculosis.

THE carbon dioxide is prepared by dropping a solution of dilute sulphuric acid (200 grammes of sulphuric acid to the litre of water) on sodium bicarbonate. Chlorohydric acid was used in the earlier experiments, but a portion always escaped with the carbon dioxide, and produced irritation of the rectum and kidneys.

The apparatus for generating the carbon dioxide consists of a square bottle in which three tablespoonfuls of sodium bicarbonate are placed. The bottle is hermetically closed by a rubber cork with two apertures, through one of which a glass tube extends to the bottom of the bottle, the upper portion being expanded into a funnel and reservoir for the dilute sulphuric acid, beneath which is a glass stopcock to regulate the descent of the liquid. The second aperture in the cork is filled with a curved glass tube for the escape of the gas, and this exit tube is prolonged by a section of rubber tubing for attachment to a rubber bag of six litres capacity, in which the carbonic acid gas is to be collected. The mouth of this bag is furnished with a stopcock. The sodium bicarbonate being placed in the bottle, the cork is inserted, and the stopcock of the sulphuric acid reservoir is closed. This reservoir is then filled with the dilute sulphuric acid, say four ounces, and the stopcock is turned so as to allow the acid to drip on the soda. The carbonic acid gas is evolved immediately, the activity of the disengagement being controlled by the stopcock. A little gas is allowed to escape into the atmosphere, so as to drive off the atmospheric air in the bottle. Meanwhile, the reservoir is

rolled tightly so as to drive out all the air it contains, as far as possible, and is then attached to the exit tube for the gas and allowed to become filled with the carbonic acid. It is then removed and its stopcock is closed. It must be removed before the stopcock is turned, in order that pent-up gas in the bottle shall not break the apparatus. This is one of the points to which the physician must direct the attention of his nurse, before entrusting the patient to the attendant. Another point upon which stress must be distinctly laid, is the rolling of the bag to prevent retention of atmospheric air.

The gas is now ready for use. The reservoir is attached to a hand-ball aspirator with check valves at each end. This is attached to a metallic T tube passing through a cork which is intended to be placed in the neck of a bottle containing the medicated solution, preferably a highly charged natural sulphur water. The vertical portion of the tube is furnished with a double valve to prevent aspiration of the liquid through which the carbonic acid gas bubbles, and contains an orifice at top for the escape of the gas into the distal horizontal branch, to which is attached a tube connected with a nozzle for introduction into the rectum. As this tube could not be made here in time to supply me with the number of instruments I required, Mr. Kyner, Superintendent of the Polyclinic, has imitated the contrivance at my suggestion by two glass tubes placed in the cork just as in the cork of a modified Wolff bottle; the longer tube being supplied with a valve to prevent regurgitation. It answers equally well with the original. This T branch is placed in a bottle three-fourths filled with the sulphurous water—in this instance the Red Sulphur Spring water, of Virginia—and the aspirator is worked two or three times to drive out the atmospheric air in the bottle, another point to which the physician must emphatically direct the attention of his nurse. The nozzle is then inserted into the rectum of the recumbent patient and the injection made slowly. All clothing must be loose. With the hand on the abdomen, the amount of distention of the colon is noted, and when this is marked, or when pain is complained of, the process suspended until absorption takes place, as manifested by relaxation of the tension; and then the process is resumed. Fifteen to twenty minutes are consumed in the process of driving the six litres of carbon dioxide through the sulphur water. The sulphur salt—*e. g.*, sodium sulphide—is de-

composed, hydrogen sulphide being formed, a portion of the carbon dioxide taken up to form sodium carbonates.

The only modification of the process I have permitted myself (for I deem it due in justice to Dr. Bergeon and Dr. Morel to test their method of administering the gas in their own way) is to place the mineral water bottle in a bath of warm water, which renders the injection more grateful. Within four minutes, sometimes within one, the sulphuretted hydrogen can be perceived in the breath, and be detected by paper saturated with plumbic acetate. It is prudent to have a bed-pan at hand in case there should be a call to stool. The injection should not be made upon the full stomach. This may produce emesis, it is said. You want all the room possible in the abdomen to prevent pressure upon a distended stomach and upon a diaphragm.

Three or four hours after a meal, or just before one, is the best time for injection. Two injections are given daily. I have found three hours after breakfast and three hours after supper the best periods. My patients have slept better after an injection just before bed-time, than after one three or four hours after the midday meal.

At the first injections but half the contents of the reservoir of carbonic acid should be used, so that the parts and the system may be gradually accustomed to the process.

If the bottle of sulphurous water remain strongly impregnated after the injection, it may be tightly corked for use a second time. It is not necessary to have the bowels moved before an injection. Hæmoptysis and the presence of the menstrual period do not contraindicate the process. Indeed, Dr. Bergeon has seen amenorrhœa relieved during this treatment, even when that condition had failed to yield to the ordinary methods of treatment for that special condition.—*Phil. Med. News.*

The Treatment of Pulmonary Tuberculosis by the Injection of Sulphuretted Hydrogen into the Bowels.

THIS form of treatment, which at first strikes one as very absurd, is really gaining ground. It was first instituted by Dr. Bergeon, lately professor in the Medical School of Lyons. He communicated the result of his experiments to the Academy of Science, during the summer and autumn of last year. Dr. J. Henry Bennett, in a communication to the

British Medical Journal of December 8, 1886, spoke favorably of the treatment and of the results as they had been observed by him. On this continent—so far as we know—the treatment was first introduced into the hospitals of Philadelphia. In a recent number of the *Medical News*, two articles on this subject have appeared—one from Dr. J. Solis Cohen, and another by Dr. Edward T. Bruen. The apparatus is simple, and can be used by any intelligent nurse. It depends on the principle that when a current of carbon dioxide is driven through a liquid in which a gaseous or volatile substance is held in solution, it dissociates it and drives it forward.

The sole object of this form of treatment is to bring into intimate contact with the diseased lung a safe antiseptic, which would kill the diseased germs; and which would, at the same time, not be injurious to the patient. After many experiments, sulphuretted hydrogen, introduced in the way described, was found to be the most effective agent.

It is not yet time to give a definite opinion upon this mode of treatment. In Dr. Cohen's cases, a decided improvement took place in the majority. "All published observations recount rapid amelioration of the suppurative phenomena, a marked diminution in cough, expectoration, dyspepsia, and night-sweats being noted within two or three days."

One must remember that consumptive patients will often seem to improve under every new form of treatment; and when such a mysterious procedure as the one before us is adopted, they are very liable to be impressed with the idea that at last a cure has been found. Dr. Bergeon relates several cures. Some of his patients have been able to resume occupations which try the lungs very much.

Dr. Edward T. Bruen has adopted this form of treatment in twenty-four cases. He concludes his paper with the following summary:

1. In nearly all cases lasting effects have been secured in the reduction of temperature, suspension of night sweats, lessened cough and expectoration; and in some, all physical signs of bronchial catarrh abolished.
2. Temporary reduction of pulse-rate fifteen to twenty beats, and temperature one-half a degree to one degree during the administration of the gas.
3. The amount of gas introduced into the bowel has varied from three quarts to a gallon at each injection.

It has been introduced very slowly, from fifteen minutes to half an hour being demanded by the operation. The administration has been practiced in most cases twice in twenty-four hours. No injurious effects from the gas have as yet been observed.

4. Administration of the gas in different amounts and varying degrees of concentration is now being practiced, and also investigations into the characteristics of the sputa.

5. In only one of the cases of phthisis the effects of the gas have been entirely negative.

6. In cases of phthisis complicated by intestinal lesions, experience is still insufficient to make it possible to state positive results.

7. The ultimate value of the treatment can certainly only be established by time. The probable mode of action would seem to be antiseptic, and by reducing suppuration the relief of the attending serious symptoms, the patient is permitted to gain by food, exercise and general treatment. Thus far, the value of the gas seems to be that of a useful therapeutic measure, rather than a curative plan of treatment.

8. The method of preparing the gas for use in the hospital is as follows: The carbonic acid gas is passed through a solution of chloride of sodium and sulphide of sodium in twenty-two ounces of water. The proportion of the salts has been increased in some cases, and some trials of other combinations are being made.

It will require a much more extended trial of this treatment, and continued observation of the patients, before a definite opinion can be given as to its value.

So far the indications seem favorable. It is probable that in this way many cases may be improved, and, perhaps, when this treatment is adopted early enough, cures may follow.—*Canadian Practitioner.*

Administration of Quinine.

THE question of the coincidence of the physiological action and the therapeutic action of this drug, forms the subject of an editorial in the *Boston Medical and Surgical Journal*. As to the utility of quinine in malarial diseases, all physicians are agreed, but there is not the same unanimity as to the period when sulphate of quinine should be given,

in order that the utmost benefit may be derived from it. There is, first, the method of Torti, called the Roman method, then that of Sydenham, called the English method, and finally that of Bretonneau, called the French method. Torti gave his cinchona bark (quinine was then unknown) immediately before the ague fit. He prescribed two or three drachms of the powder in one dose, then he let the patient rest two days, then gave for two days in succession one drachm, and after an interval of a week, half a drachm every day for a week. Sydenham administered one large dose (5iii) of bark (which he called "febrifuge powder") after the paroxysm, and repeated the same dose every four hours, till the time of the next chill, then let the patient rest a week, when he recommenced the treatment. Bretonneau and Trousseau, who lived after the discovery of quinine, began the treatment with one large dose of sulphate of quinine, which they gave immediately after the attack; this is also Briquet's method, who urged that at least fifteen hours should elapse between the giving of the dose and the ague fit which he wished to prevent.

Dujardin-Beaumetz, in commenting on the views of those French authorities, thinks that the space of time which separates the administration of the massive doses from the onset of the chill is too long, the physiological effect will have worn off; and he recommends to give the quinine, not immediately after the ague fit, but three or four hours before. When the fever is tertian (which is the most frequent type) he would give the quinine every other day, in one dose of half a gramme to a gramme—enough in fact should be administered to prevent the expected attack.

Torti, Sydenham, Bretonneau, Trousseau and Briquet agree in this, that the massive doses of quinine should be given a long time (at least fifteen hours) before the ague fit which they desire to prevent. Gubler and Dujardin-Beaumetz, believing that the physiological and therapeutical effects are the same, lasting at the most not more than six hours, do not rely on one large dose administered fifteen hours or so before the chill, but prescribe several repeated doses, of a fraction of a gramme, begun near the time of the anticipated febrile crisis.

We may remark, in concluding, that American practitioners have generally adopted the method of Bretonneau, Briquet and others, whose experience has taught them that quinine proves most effective when given as near as possible

to the paroxysm which has passed. Flint thinks that if the antiperiodic be given in the sweating stage, the chances of preventing the next paroxysm are greater than if the administration be delayed till after this stage. As regards doses, he says the most effective plan is to give the remedy so as to produce evidence of cinchonism as speedily as possible. One full dose of ten to twenty grains will generally accomplish this; he prefers, however, the method of giving smaller doses, five grains to an adult, every two hours until cinchonism is produced. By this method of treatment, he affirms, in a case of quotidian type, the chances that another paroxysm will or will not occur are about even. In a case of tertian type, the chances that another will not occur preponderate.—*Weekly Medical Review*.

Locomotor Ataxia.

BY DR. ALBERT A. MACDONALD.

(Extract from paper read before the Toronto Medical Society, March 10, 1887.)

TABES dorsalis seems to have been observed by the ancient writers, who, however, covered by the name many functional and organic diseases of the spinal cord. About the commencement of the present century the name included all the wasting diseases of the cord. Between 1847 and 1858 the clinical signs were considered together with the anatomical lesions, and the posterior columns were settled upon as being the seat of this most common form of spinal disease. It was taught that as the posterior columns were the sensory and centripetal conductors, then, of course, anything which would destroy or disease that conducting medium would give rise to inco-ordination. It appears now that the posterior columns are made up of a variety of fibres whose functions are of a complex nature.

Some hold the view that the most important centrifugal centre lies behind the plane which divides the cord into anterior and posterior halves, and that the centripetal centre lies in front of it. On these points a large field still remains open for discussion and research. The diseased field is not uniform in the posterior segment, but appears to be more intense in special parts.

Though pathology explains the changes in the cord, and

the symptoms arising therefrom, it is still unable to draw a line of distinction between inflammatory and non-inflammatory affections. The microscope does not reveal to us the difference between syphilitic and non-syphilitic tabes.

A stage exists before sclerosis takes place, in which there is a granular degeneration, and the part of the cord in which sclerosis usually takes up its commencement is a triangular field of the posterior column, in the lumbar enlargement. The posterior rootlets running through this field are affected by all the changes. From the point of commencement the affection is usually progressive, and the different pathological conditions are clearly defined, and now a disease which formerly passed through its earlier stages, labeled as rheumatism or some other disease, is diagnosed before we are justified in making the announcement to our patient that he is afflicted or threatened with a disease at once most insidious, slow, progressive, distressing and hopeless.

In locomotor ataxia, no single cause can be assigned as the sole responsible factor in all cases. Sexual excesses, exposure to cold and wet, overexertion, injury, shock and syphilis are some of the common causes named, and, in the early history of the disease, the victim of tabes has frequently to bear the reproach of having, by his own excesses, brought the injury upon himself. Nothing can, however, be said more definitely than that one or more of the supposed existing causes may have coexisted with or preceded the attack.

Though hereditary tendency was thought to play quite an important part in the causation, there is but one case on record where both father and son had the disease. Those who have other nervous affections are more often affected. Sex has a decided influence—only about one female for every ten males becoming affected. In women the disease is more slow and less marked by crises.

Amongst the elements which constitute a predisposition to tabes, syphilis undoubtedly holds the first place. Statistical evidence gives the number of syphilitics amongst tabes as ranging all the way from thirty-two to ninety-three per cent., and I am inclined to the view that the closer the scrutiny the higher will the percentage be found to be. Clinical distinction between syphilitic and non-syphilitic cases is difficult. An early preponderance of diplopia, ptosis and pupillary symptoms is regarded by many as an evidence of syphilitic origin.

Age seems to exert some influence, and the date of commencement in most cases is not earlier than twenty-five years nor later than fifty. Spinal concussion, diphtheria, scarlatina, and a number of toxic agents have been credited with the production of the disease. Of these, ergot of rye in excess produces a disease closely resembling locomotor ataxia. The causes may be picked from so many groups that we are forced back to the original assertion, that no single cause can be assigned as the sole factor in all cases.

In the matter of diagnosis, the observance of the walk, which in advanced cases is so characteristic of the loss of power of co-ordination, is sufficient to arrest one's attention. In suspected cases we must look early for such symptoms as the absence of the knee jerk, reflex iridoplegia, bladder paralysis, delayed pain conduction, and other sensory disturbances.

There are other spinal diseases which might produce these or some of these symptoms, but it is more by the general grouping, and excluding of extra symptoms, that the early diagnosis is reached. Perhaps more has been said about the "absence of the knee jerk," as a diagnostic sign, than of any single symptom observed. At first great stress was laid upon this point, but, unfortunately, it does not stand the test of time. I have now one patient in whom the disease is well established, and in whom the knee jerk is present and perfect.

Recent observations on a large scale have proved that the "knee jerk" can not be elicited in every healthy man, and I have met with several cases in which it was absent, though the patient was in good health. It is difficult to demonstrate in children, and gradually disappears with age. There are some sources of possible error in examining for this symptom, and before deciding that the knee jerk is absent it is well to make a thorough test. As a rule, in a healthy adult, if, whilst sitting on a chair one leg is thrown over the other, and then the ligamentum patellæ of the uppermost knee is struck in the middle a short, quick blow, the leg is jerked involuntarily in about one-fifth of a second. If failure should take place, the ligament should be placed more upon the stretch and different parts should be struck. We should bear in mind that not only do some other diseases impair this test, but that a number of healthy individuals do not respond and still live many years unaffected by tabes.

The condition of the pupil is a more constant sign. Irido-

plegia accompanied by oculo-motor disturbances is due, as a rule, either to disease of the spine or of the pons varoli. The course of the disease is slowly progressive. The symptoms which precede and accompany its advent are of such an insidious nature that often the patient does not consider himself seriously ill. Perhaps he may notice with annoyance that he tires more easily than formerly, that he has vague pains, dizziness and impairment of vision, or other such symptoms. He may continue in this way for years before any great advance in the disease is made; or the progress may be steady from the outset of the first symptoms. One side is usually affected first, but the other usually follows and keeps on until both are equally affected. In nearly all cases the lower extremities are affected first, and usually a long time elapses before extension to the upper parts takes place. Extending as it does over a number of years, the patient often dies of some intercurrent affection—cystitis, pyelitis, bed-sores, and pulmonary consumption are amongst the most frequent causes of death. Perfect cures are very rare, though sometimes patients may improve for a time, or the disease may remain stationary. Nutrition is not impaired until very late, and then its effect is shown first in the lower extremities. Muscular strength as such is usually unimpaired until a late stage.

With regard to the signs which are most common: The tired feeling, especially in the knees and ankles, having a numb feeling associated with it, has been regarded as pathognomonic of early tabes. The sudden pains, which are usually described by the patient as rheumatic, affect more often the sciatic, anterior-crural, abdominal and perineal regions—and differ from rheumatic pains, in having paroxysms and complete intermissions, and in being relieved by pressure.

Another kind of pain is described as a tearing or boring pain. I have one patient in whom the belt sensation is well marked, but in addition he feels as if his left hypogastric region were as hard as a board. About one patient in five passes through his trouble without pain. I will mention one case of the kind which remained for some time under my care: H., a native Canadian farmer, aged forty, has been married about fifteen years; has no trace of any hereditary or syphilitic disease. His parents were steady farmers who lived to a good age and were always healthy. His own habits were good and steady. No distinctly exciting cause could be found, unless it might have been, that about two years ago

his house and barns were burned down during the winter, and in the following months he worked very hard and was exposed to a great deal of cold and wet. He had also indulged in excessive venery for the past twelve years. About fifteen months ago he noticed that, though he seemed strong, he could not walk well; he could hardly walk in the dark, and even in daylight would stumble over any uneven surface. Going upstairs was difficult, and coming down a great deal more so. The sensibility of the parts supplied by the anterior-crural nerve on the left side was impaired, and he imagined that the muscles of that thigh were very weak, though to me they seemed as strong and firm as they should be. He exhibited in a well-marked manner the peculiar walk of the tabic patient. He had iridoplegia and sometimes dizziness, and if he stood with his eyes closed and his feet together, he tottered until he seemed likely to fall. The patellar jerk is absent, and he has had a complete absence of pain throughout the whole of his attack, in this way differing from the great majority of tabics. I mention this particularly, as it is the only case I ever had in which the symptoms were well shown, and in which a complete absence of pain obtained.

The reason he gave for seeking aid was, that whilst walking he got his feet so tangled together that he could not keep up, and so was useless about the place in attending to his ordinary duties.

The most important question, both to the patient and practitioner, is—What can be done?

“An arrest of the disease is possible, and though restoration of the nerve elements once destroyed is impossible,” still, partial restoration of the functions of the nerves often takes place.

Of all drugs which have been employed perhaps nitrate of silver in gradually increasing doses has borne the best reputation in non-syphilitic cases. My belief, however, is that, as most such cases arise from overexertion and exposure of some kind, we must, in addition to the treatment by drugs, enjoin on our patients the importance of giving rest to the diseased parts, and of improving the general tone of the system by such changes of climate, occupation or amusement as may seem best suited to each case. The mixed mercurial and iodide treatment has given good results in some cases where it was not possible to trace any syphilis.

Various forms of electricity have been tried and highly

recommended by some. The farado-cutaneous brush has been especially extolled. In my practice electricity has not given any permanent beneficial result.

Ergot is recommended by many, and is undeniably of use during the earlier stages, where the patient is troubled with hyperesthesia, lightning-like pains, etc., but there can not be a doubt about the danger of continuing its administration in large doses; it does produce a similar disease, and it may ameliorate the pains by producing or increasing the sclerosis.

Believing, as I do, that so many cases of tabes depend upon syphilis, or at least upon a pre-existing syphilitic state, I advise a prolonged course of anti-syphilitic treatment, and while we expect to gain the most lasting benefit in these cases from prolonged mercurial treatment, we must not lose sight of the fact that mercury itself is capable of being directly injurious to the nerve centers. Some assert that they never have been able to observe any benefit from pushing mercury or the iodides, whilst others are just as confident of their benefit.

My strong conviction is that where the disease is of syphilitic origin, large and continued doses of the iodides will give greater relief than any other plan of treatment.

I might mention a case of this class which was rather peculiar, and which seemed to me to illustrate the benefit of large doses of iodides.

E. P., a well-developed man, aged 38, after a course of treatment at the Hot Springs of Arkansas for the cure of his syphilis, came here and indulged freely in alcoholics in the autumn. He thought his pains and ataxic symptoms were due to malaria or the cold weather. He could not stand alone with his eyes shut. Though his muscles were firm he tired easily, and could not walk across the room without taking a very erratic course.

He lifted his feet too high and planted them down with a jerk. He could eat well, but his sense of taste was dull. He had a hesitancy in urinating.

The tendon reflexes, though not absent, were not well marked. The iris responded feebly to light, and his speech was thick. He suffered severely from the lightning-like pains, and the belt sensation was present. Ptosis existed on one side only. I plied him freely with the iodides, commencing with 15 grs. of pot. iod., and increasing to more than double that quantity four times a day, combining this

with a general tonic treatment and judicious regimen. By careful watching he was induced to keep this treatment up, and in about a month he was comparatively well.

I then lost sight of him for a month, during which time he had put himself through a course of treatment by "compound oxygen," with the result of having a return of all his old symptoms with increased severity.

Again I plied him with the iodides with good results, until he was well enough to go out of town and enjoy the benefits of a residence in the country.

After about a year I saw him in consultation with another physician under whose care he was then, who had taxed the resources of the pharmacopæia for the relief of the old symptoms. I recounted my experience with the case, and again advised pushing the iodides to excess. I have not heard the result of the treatment, but a short time ago saw the patient on the street, walking better than he did two years ago. This case seemed to me to respond to the iodides in very large doses only, but relapsed quickly on their withdrawal.—*Canadian Practitioner.*

The Influence of the Germ Theory upon Therapeutics.

BY JAMES CLELAND, JR., M. D.

Read before the Detroit Academy of Medicine.

IN presenting to you this evening the subject of the paper, I do so not for the purpose of offering to you anything new or original, but simply to bring before your attention a few important facts bearing upon the influence of the germ theory on therapeutics.

The germ theory is, I am aware, a well-worn subject, notwithstanding the fact that there is much to learn concerning it, but its influence upon therapeutics will allow of some interesting discussion.

Permit me, briefly, to outline a few historical facts relating to its development.

It was early in the seventeenth century that Stahl proposed a purely chemical theory of fermentation. About the same time, or a little later, Hauptmann advanced the probable causation of epidemic diseases by minute living organisms, but the condition of medical learning (notwithstanding that it was during this time that Harvey immortalized himself)

was full of "conjectural hypothesis" so that Hauptmann's theory was allowed to slumber until revived by Linnæus in the eighteenth century. It was soon after that the life history of the yeast fungus was started, and from this we are brought to face the investigations of Liebig, and following in these steps the studies of the fermentation of vegetable juices and the putrefaction of animal tissues.

Meanwhile, these observations and speculations gave rise to the importance of minute living organisms, and with the advancement of these ideas came the remarkable discovery in 1847 that puerperal fever is caused by a morbid principle entering from without during the puerperal state, and that it could, in a measure, be prevented by the adoption of such means aimed at the destruction of this principle. From thence onward to our present time the mighty progress of this theory can be followed step by step. As an evidence of its powerful influence it can be said that in the obstetric branch alone, where in the best maternities of Europe the death-rate was excessive, the mortality ranging as high as 15 to 20 per cent.—so that Fritch graphically describes it by saying, "To be laid on the bed of confinement was equal to being delivered to the hangman"—now, by the introduction of antiseptic measures and by the recognition of the etiological factor, the death-rate has been lowered to less than 1 per cent. In the history of medicine in our own time, which has been truly characterized as the era of mycopathology, much has been done toward placing the germ theory among the accepted doctrines; and although still in a state of probability, yet from a practical point of view these investigations have tended to a result nearly the same as if the doctrine were altogether settled.

With the rise and advancement of the germ theory there has been a corresponding change and development in applied therapeutics.

Starting from the impenetrable darkness which surrounds the origin of medicine anterior to all authentic history, we can follow step by step through the successive ages the development of therapeutics until it grew to be an art. We can follow the skepticism which permeated all branches of medical learning, from the time of the earliest practitioners of medicine down to within half a century of our own time, and this skepticism and superstition which hovered around the earlier history of medicine did not give way until the antipyretic treatment of fevers came in vogue, or until more recently,

when the discovery was made of the origin of puerperal fever, and following this, the discovery that a large part of the general diseases are caused by a particular germ. The result of these discoveries has given rise in therapeutics to a new class of remedies termed "germicides," which Sternberg defines as those remedies which have the power of destroying vital activity of micro-organisms. With the discovery of this class of remedies, there has been a vast amount of experimentation with a view to obtain precise knowledge of their germicidal properties and their therapeutic possibilities. This has been in a measure achieved by the effect of germicides upon micro-organisms external to the body. No adequate or just idea of the progress of therapeutics in this branch can be had without a very comprehensive view, and in ætiological pathology and direct treatment of disease we find the true cause. In the ætiological pathology, the advance has been made by the use of the microscope in studying the blood, structures, secretions, growths and deposits of all morbid processes for the particular purpose of establishing organized germs which may exist in them, their possible bearing upon the causative relations of the disease in which connection they have been found associated, with the result of finding bacterial development in a large number of the acute general diseases.

Each new germ discovered has been regarded as the cause of whatever disease or morbid product it was associated with, until to-day germ theories and germicide remedies occupy a permanent place in the medical literature of the times. Now all the acute infectious diseases are generally regarded as the work of a micro-organism. Thus by the adoption of measures which tend to destroy or prevent these germs, the disease may be arrested, and, as a distinguished medical author has rightly said: "The glory of Jenner's discovery, by which the ravages of smallpox have been controlled, seems not unlikely to be paralleled by the achievement of Pasteur and others in a similar preventive mastery over the other maladies of men and animals." The world owes a debt of gratitude for the patient investigations which have led to the discovery of these germs, but what a greater debt will she owe to him who discovers what to do with them, and it is here that preventive medicine has somewhat answered the question and made her powerful influence felt. But when we come to the practical outcome of these investigations we find the greatest change in thera-

peutics, due to the discovery of these germs, has been made in the surgical and obstetrical branches, for in the medical branch this class of remedies in most of the acute general diseases has little, if any, been changed. This has been due more to the discovery of the germ theory, and the general principles laid down by Lister and others, than to any special dexterity in the hands of the operator, and by the recognition of these principles there has been a great saving in mortality. Upon medical practice little change in the direct therapeutic application of drugs to disease can be noticed, for in the conduction of therapeutic experimentation we are obliged to perform our work external to the human body. Numerous germicide remedies have been discovered, which outside of the human body are capable of destroying germ life, yet when given internally, are capable not only of destroying germ life, but also animal life, and it is here where the application of germicide remedies to internal medication comes to a standstill.

In an editorial in the journal of the American Medical Association, the editor sounds the keynote by saying that formerly we erred by giving too little medicine; now, in the application of the germ theory we are in danger of giving remedies which will altogether overcome the animal economy.

The greatest influence upon therapeutics has been made in a hygienic way, for in all of the contagious diseases we recognize the presence of minute germs; our treatment of the disease "*per se*" has little changed, but the surrounding condition has received great attention.

To speak of the great change which has been made in the therapeutics of surgery and obstetrics would simply be to reiterate accepted facts. We can only note the influence by the increasing boldness which has arisen in our operators and the many wonderful ends which have been attained.

The germ theory has an influence, and while it may not yet be in the direct treatment of disease, still, through its influence our management of disease has been greatly changed.

DISCUSSION.

Dr. Connor: The writer of the paper has well said that, of all the theories that have been advanced in the present century, there is none which so vitally concerns the practical physician as the germ theory. It is not new to us, in

this generation, that itch is caused by the presence of a parasite in the skin—and that it is cured by destroying the parasite—although the world was a long time in finding this out. Other skin diseases we know also have a parastic origin, and the remedies are those which kill these low forms of life. The treatment of this class of diseases is now placed on a perfectly satisfactory basis. We have also been familiar with internal parasites, infesting the intestines and some of the viscera, and have been accustomed to treat the disorders occasioned by them by the use of poisons. We have learned, too, that it is better to avoid the difficulty by the use of cooked food and boiled water, than to allow the parasites to find lodgment, and then to attack and destroy them.

It seems rather strange that it should have been so long before it was discovered that wounds must be protected against the ingress of minute parasites, but it is now established beyond a doubt that the mortality of capital operations in old times was due almost wholly to that ignorance, and the neglect of what are now the most obvious precautions.

The latest view of pathology extends much more widely the scope of antiseptic precautions. Numerous internal diseases are believed to depend upon the presence of minute parasites. Tuberculosis has its bacillus, and attempts are made to attack the disease by the use of inhalations whose object is to destroy these. The very latest proposition is to poison them by impregnating the blood with hydro-sulphuric and carbonic acid gases, which for this purpose are injected into the rectum. The method is spoken favorably of by Dr. J. Hughes Bennett and several prominent French therapeutists.

The importance of the subject, and the amount of research which is being directed to it, is shown by the fact that there is now published in Germany a journal especially devoted thereto—the *Bacteriologist*.

Dr. H. A. Cleland: The subject of the paper is such a vast one that is not easily discussed. There are certain lines still open for investigation in preventive medicine. There are many points in the theory yet obscure. It is certain that the alleged disease germs will not produce disease under all conditions. We know that the same is true of the contagions of disease that are known to be communicable by a "virus."

Pasteur found that his "cultures" would cause in chickens a specific disease only on condition of a reduction of temperature, by placing the chicken's feet in cold water. The experiment was a very suggestive one. We know that of a number of children exposed equally to scarlet fever, some will take the disease, others not. It may be that temperature has something to do with the receptivity. We may hope to learn more yet with regard to these matters.

In preventive medicine, the antiseptic theory has brought forth more fruit than any other.

Dr. Bigg: The experience of Dr. Garrigues in the Maternity Hospital at New York is a convincing argument in favor of antiseptic measures. When the doctor assumed charge of the Hospital, the mortality was twenty per cent. In a short time, under strict adherence to antiseptic methods, it fell to three-fourths of one per cent.

Dr. Andrews: In the line of surgery, the germ theory has yielded practical results of the greatest importance. To protect exposed surfaces from the invasion of germs is a simple problem, and results show that when accomplished the processes of repair go on with almost the same certainty as the ordinary processes of nutrition. Yet still we find a great difference in susceptibility among patients to the influence of those agents which it is the object of antisepsis to exclude. Much depends on what we call the patient's vitality. We find that healthy plants under favorable conditions of air, light and soil, are not attacked by parasites, but the moment these conditions fail, they become infested.

There are great epidemics, it is true, as of potato rot, where this apparently is not the case, and yet we may not be quite sure that there is not even in these cases some widespread unfavorable condition which is in reality the conditional cause of the epidemic, and the circumstance that such epidemics are often cyclic in their visitations is an argument in favor of this view.

When a person is operated upon, the conditions are liable to be bad; vitality is frequently low; the resisting power is diminished; hence the especial importance in surgical operations of precautions against anything that may interfere with the reparative processes, which in a healthy individual would perhaps take care of themselves.

The physician labors under the disadvantage, in contrast with the surgeon, that he can not see the microbes, or know precisely what point to guard. He can not render

the surroundings of the patient, including his food and drink, and the air he breathes, aseptic, without destroying the patient's life. He can not hope to charge the body with antiseptics. His aim must rather be to increase the vital resistance of his patient. Hence the importance of alimentation, of a supply of pure air, etc., which are now so much insisted upon.—*American Lancet*.

Digital Exploration of the Kidney, with Report of Three Cases.

Read before the Chicago Medical Society by Wm. T. Belfield.

OF some 250 cases of nephrectomy heretofore reported, about 44 per cent. have died from the effects of the operation. The chief causes of death have been:

1. Shock (42 per cent. of the fatal cases).
2. Uræmia (14 per cent.).
3. Peritonitis (21 per cent.).

These three factors were thus responsible for 77 per cent. of all deaths. Improvement in the results of renal surgery seems, therefore, to require means for the avoidance of these three great dangers.

The chances of fatal shock are decreased by early operation, before the patient is exhausted and the damage to kidney tissue extensive through long illness. This self-evident proposition is illustrated by the fact that, while about 18 per cent. of all (250) nephrectomies have died of shock, yet of twenty-four nephrectomies of fairly healthy kidneys removed for wounds of loin, ureter, for mobility, etc., not a single death occurred from shock.

The greatest obstacle to the early surgical treatment of renal diseases has been *faulty diagnosis*. Such cases are usually treated as lumbago, sciatica, hip joint disease, and (especially) cystitis, for a long time before the true seat of the lesion is detected or even suspected. Since it is not always remembered that pyelitis produces symptoms identical with those commonly ascribed to cystitis, the former is not suspected, and a diagnosis of cystitis is made; and as cystitis is still too generally regarded as an entity, a disease instead of a mere symptom requiring explanation—the patient is treated for “chronic cystitis.” Finally, months or years later, a lumbar swelling or other symptom reveals the

renal origin of the difficulty. Meanwhile, the patient has become so enfeebled that he succumbs to the shock of an operation that could have been safely borne at an earlier period. Early exploration of the kidney—a comparatively slight operation—has, by drainage of the pelvis, in many cases relieved a difficulty which at a later stage would have required nephrectomy, a formidable operation; moreover, a preliminary drainage has been shown to be a valuable factor in diminishing mortality from nephrectomy. Thus, of seventy-three nephrectomies for suppurative lesions collected by Gross, twelve were made after previous exploration of the kidney, with but one death; of the remaining sixty-one—without previous nephrotomy—thirty-one died.

Uræmia rarely occurs after any renal operation, provided the second kidney be present and in healthy condition. While commonly associated with nephrectomy, one of the annexed cases shows that uræmia may be inevitable after simple nephrotomy; hence a necessary preliminary to any renal operation should be an attempt to ascertain the functional condition of the opposite kidney. In the female this can often be accomplished by cauterizing the ureter, after Pawlik's method; in the male probably the best, though still an uncertain, means is Silbermann's instrument for compressing one ureter. (Instrument shown.) The statement that the abdominal incision, by permitting digital examination of the opposite kidney, obviates the dangers of uræmia, is fallacious; for in many cases kidneys which are indistinguishable by the finger, or even by the eye, from normal organs are extensively invaded by disease—inflammatory, tuberculous or calculous. The pair of kidneys exhibited by Dr. Steele this evening are signal examples—normal in size, contour and consistence, yet each extensively tuberculous. Palpation through an abdominal incision could have detected nothing abnormal in either of these kidneys.

The following cases illustrate several of the principles above enunciated:

S. M., widow, 26 years old, delicate since childhood, has had dyspepsia for years; for a year past has suffered from headache, pain in the back and left thigh; menstrual intervals shortened to two or three weeks. Was variously treated for lumbago, sciatica and ovarian disease. In March, 1886, urination was unduly frequent and sometimes painful; urine contained pus and blood; was treated for cystitis.

On admission is emaciated and feeble; urination every

half hour or oftener, painful; has frequent pain in lumbar region, often shooting down to left thigh; requires morphine constantly. Urine acid, depositing blood, pus and occasional rosettes of large uric acid crystals.

Diagnosis: Calculous pyelitis, probably limited to left side; right ureter catheterized and urine appeared normal.

November 29, 1886, kidney was exposed and pelvis explored; mucous membrane rough and ulcerated, clots of pus evacuated; wound in kidney packed with gauze.

Except for persistent vomiting for a few days, recovery was without notable incident. The renal fistula was closed on the twenty-first day; patient has since been free from all her former symptoms and is regaining flesh and strength.

G. F., 30 years old, was knocked down by a cable-car November 28, receiving a lacerated wound of right hand and various contusions. The hand was dressed, and patient presented no notable symptoms until December 11, when often straining at stool he passed a large quantity of blood with the urine and had severe pain and tenderness over the right kidney, with some temperature; these symptoms persisted in spite of rest, ergot, gallic acid and opium; the right loin, while not swollen, felt boggy. December 22, the patient having experienced several irregular chills and sweats during the previous day, a lumbar incision was made down to the right kidney. The perirenal tissues were found closely adherent, extravasated blood was seen under the capsule, and a rent one and a quarter inches long was found in the posterior surface of the kidney extending into the pelvis; about half an ounce of a watery fluid lay behind the kidney. A large drainage-tube was inserted. The temperature remained high for several days, after which recovery rapidly ensued, and January 14 the patient was discharged well; the wound entirely healed.

C. L., 48 years old, farmer, began some two and a half years ago to suffer from slight pain and stiffness in the loins; later, pus appeared in the urine; was treated for Bright's disease. About a year ago urination became frequent and sometimes painful; was supposed to have cystitis. Has lost flesh; his rest has been much disturbed by frequent calls to urinate. Six months ago he passed two small calculi after some renal colic on left side; since that time has had slight colic on left side several times, followed by expulsion of clumps of pus but no calculi.

Diagnosis: Tuberculous or calculous pyelitis, probably

former; bacilli were found in one examination of the pus, and the lower organs were normal.

Exploration, January 26: The kidney (left) was considerably enlarged; no calculus could be detected with finger or needle. Incision through kidney showed the pelvis considerably dilated, its orifice narrowed by a thickening of upper part of ureter; mucous membrane ulcerated in several places; the pyelitis evidently tuberculous.

Nothing of note occurred until the fifth day, when the urine became scanty and tinged with blood; soon the usual evidences of uræmia became manifest, and death ensued from this cause on the eleventh day. A partial autopsy showed that the right kidney was extensively, the left slightly, tuberculous; bladder and prostate normal. Evidently the right kidney, which had never caused pain, had been first diseased; the function of the left, which had latterly been performing most of the renal excretion, had been arrested, not by the slight incision, but by the congestion which followed the removal of the accustomed pressure in the dilated pelvis. Similarly uræmia has followed the sudden evacuation of a habitually distended bladder.

To summarize: 1. Surgical affections of the kidney and its pelvis are frequently masked under symptoms of cystitis, lumbago, hip joint diseases, etc.

2. Digital exploration of the kidney and its pelvis often affords the only available means for accurate diagnosis in the early stages.

3. When made with due precautions, this operation is almost devoid of danger; while saving the kidney, it may accomplish all that a dangerous nephrectomy could offer at a later stage; and if it fails to cure, it materially increases the chances of recovery from a subsequent nephrectomy.

4. An investigation into the functional condition of the opposite kidney should precede an exploratory incision into the pelvis.

ANTI-NEURALGIC PILL.—The following is the formula of Laborde:

Aconitinæ crist	gr. $\frac{3}{1000}$.
Quiniæ hydrobromat	gr. jss.
Syrup. quinquiniæ	q. s.

One pill may be taken every four hours, until five or six

daily are taken; the frequency of the dose should be diminished as soon as the full effect is established.—*Revue de Thérapeutique*.

Microscopy.

San Francisco Microscopical Society.

PRESIDENT WICKSON occupied the chair at the regular meeting of the San Francisco Microscopical Society, April 13, 1887.

As an instance of how a grain of truth may sometimes be transformed into a mountain of error, the Secretary read an item which has been going the rounds of the interior press, and which announced the discovery of a new glass in Sweden, composed principally of boron and phosphorus, of such extraordinary refractive power that lenses made of it would reveal the "one two-hundred-and-four-million-seven-hundred-thousandth part of an inch!" The basis of this extraordinary paragraph was probably the recent introduction of the new optical glass made at Jena, containing small proportions of borates and phosphates. By the use of this glass it has been made possible to construct lenses with less chromatic aberration than heretofore; but as the refractive index is practically that of ordinary glass, the magnifying power for any given curvature is, of course, also about the same.

Meeting of April 27th.—By invitation of Dr. S. M. Mouser, the regular fortnightly meeting of the San Francisco Microscopical Society was held in his extensive laboratory.

The members proceeded to inspect the methods adopted by Dr. Mouser in the study of bacteria and allied organisms. The various steam-filters, sterilizers (both hot-air and steam), incubators, etc., ranged along the sides of the laboratory, were duly shown and their operation described. The method of procedure is briefly as follows: Small portions of the material infected by the organism to be studied are placed with a needle-point, previously sterilized by heating, either upon the freshly-cut surface of a boiled potato, which is then covered by a bell-glass, or into a test-tube, partly filled with fluid gelatine, which is first shaken thoroughly so as to distribute

the introduced germs as much as possible, and is then poured upon a glass plate, where it hardens, and is also covered by a bell-glass. In either case the introduced organisms, rapidly multiplying by self-division, form small colonies, each original germ being the starting-point of one. Up to this point the admixture of foreign and undesired germs floating in the atmosphere is unavoidable. It is, however, an interesting and very valuable fact that the colonies respectively formed by different genera, and even species of bacteria and their allies, present marked differences of appearance even to the naked eye, so that there is little liability to error from this source. After the colonies have grown sufficiently to enable them to be identified, a test-tube, partially filled with a solidified preparation of sterilized gelatine, agar agar or similar substance, is quickly inoculated by introducing with a needle-point a minute quantity of material from what has been ascertained to be the desired colony on the potato or glass plate. The test-tube is then closed by a wad of sterilized cotton or glass-wool, and is placed in the incubator at the temperature best suited to the contained organisms. The growth of the latter is rapid and also distinctly peculiar in the different species; so that an experienced investigator, by holding to the light a tube containing a pure culture of such organisms, can determine the species merely by the appearance of the colony, which sometimes spreads over the top of the gelatine in the tube, sometimes grows only in the path made by the needle, and in other cases takes the form of a spiral, a nail, a bunch of grapes, etc. Throughout the entire process the very utmost care is taken to prevent the introduction of germs other than the one to be studied. Every portion of the apparatus and the culture-media used are sterilized with the greatest precaution, and even the hands of the investigator are bathed in germicide solutions at all the important steps in the procedure. When a perfectly pure culture of some germ has been thus obtained, the further study of its characteristics, both in the colony and under the microscope, becomes comparatively easy, and valuable experiments of inoculation upon living animals, etc., are made possible. The immensely valuable results already obtained by Pasteur, Koch and many others, are a guarantee of what may be reasonably hoped for in the near future by the study of a subject the immense importance of which can hardly be overestimated.

A most cordial vote of thanks was unanimously tendered Dr. Mouser for his very interesting and instructive exhibition.

Gleanings.

DANGERS OF ADMINISTRATION OF ETHER IN NEPHRITIS.—Dr. T. A. Emmet writes to the *Medical Record* (February 12, 1887): A recent issue of your journal contains an article by Dr. Henry B. Millard—on “The Dangers of Administration of Ether in Nephritis and Bright’s Disease.” As the author has made some effort to present the literature on the subject, I beg to offer an important contribution.

During the winter of 1865–66, I lost a patient from uræmic poisoning a few hours after closing a laceration of the perineum, and in a subject otherwise in perfect health, apparently.

This case drew my attention to the danger attending the administration of ether with any existing disease of the kidneys. It was reported to the Obstetrical Society; other cases have been given from time to time, and published in the different medical journals. Very little has been written on the subject, but I have had credit for the original investigation.

At the annual meeting of the State Medical Society, February, 1872, I read a paper on “Chronic Cystitis in the Female,” which was reported in the medical journals of the city and was afterward published at length in the *American Practitioner* for February, and in the “Transactions of the State Medical Society” for that year. I there state—“To the effects of the anæsthetic I attribute the chief danger attending operation in the advanced stage of the disease, while from irritability of the bladder its use is indispensable. As the kidneys are barely able to perform their function sufficiently well to preserve life, the balance is easily lost in the attempt at elimination, and death from uræmia rapidly takes place.

During my service as “Surgeon in Chief” of the Woman’s Hospital, it was a standing rule, which I endeavored to enforce, that in every instance the condition of the kidneys should be carefully investigated before the administration of an anæsthetic.

In the first and in the subsequent editions of my work on “The Principles and Practice of Gynæcology,” this subject will be found treated of, and in the Index under the head—Ether, danger of, in cystitis with renal disease.”

MUSCULAR PERCUSSION REFLEX; LOCO-TETANUS.—When the chest wall is subjected to a tolerably smart blow with the finger or percussion hammer, an elliptical elevation of the surface may frequently be observed for a few moments after the blow. This fact has been remarked by Mr. Lawson Tait, Dr. James Ross and others. Dr. V. V. Philipovich, of Odessa, has investigated the conditions under which the phenomenon is produced showing that it may be made available like other reflexes for diagnostic and clinical purposes. In his observations he made use of a percussion hammer furnished with a spring and an index by means of which the force of each blow was registered. The pectoral regions of 100 presumably healthy young men were examined. The lowest force required to produce the phenomenon—which Dr. Philipovich proposes to style “loco-tetanus,” instead of “idio-muscular contraction,” the term used by Dr. Ross—was 400 grammes, and the highest 2,000 grammes. On analyzing the observations, it was evident that the lower degrees of force were invariably sufficient in weakly and ill-formed subjects who had been either permanently or temporarily rejected by recruiting authorities. Still lower figures were obtained in diseased persons, the lowest of all being afforded by phthisical patients. In all chest cases it was noticed that the “loco-tetanus” was more easily produced on the side where the disease was situated, or on that where it was most extensive; thus in a case of dry pleurisy of the right side the figures obtained were—for the sound side, 550 grammes, and for the diseased side 150 grammes. The mean force required in the hundred healthy subjects was 750 grammes on the right side and 850 grammes on the left; and as the limit of that which could usually be borne painlessly by healthy persons with the instrument used (the head of which was a metal ball covered with gutta-percha) was about 700 grammes, it may be roughly assumed that if the contraction can be produced by a tap, the force of which is much below that which is sufficient to cause pain in a healthy subject, some pathological condition is probably present, or at least that the general state is below that of the vigorous man.—*Lancet*, Lond., Nov. 20.

INJURY TO FINGER.—M. Thomas, of Tours (*Brit. Med. Jour.*), described to the Paris Soc. of Surgeons a remarkable injury to the third finger. One of his patients arriving home late without his key, climbed an iron railing with sharp

pointed tops. In letting himself down on the other side his finger caught, but at length gave way. On reaching his room he found his finger completely stripped of its integuments. A medical man was at once called, who found the fleshy part of the finger fixed on the railing by a ring. M. Thomas, called an hour after, reintroduced the bone into the fleshy part of the finger, applied two sutures and bandaged the hand. The extremity of the finger became gangrenous, but nearly a phalanx and a half was saved by the operation.

“‘COCA’ AS A CARDIAC TONIC.—The New York *Medical Record* of February 26, 1887, gives an interesting article entitled “Heart Strain and Weak Heart,” by Beverly Robinson, M. D. We extract the following (p. 238):

* * * “On several occasions, when digitalis proved to be useless or injurious, I have had very excellent results from caffeine or convallaria. Certainly, the latter drug is more easily tolerated by a sensitive stomach than digitalis is; and whenever the nervous supply of the heart is especially implicated, I believe that I secure more quieting effects from its employment. Among well known cardiac tonics and stimulants for obtaining temporary good effects, at least, I know of no drug quite equal to coca. Given in the form of wine or fluid extract, it does much, at times, to restore the heart-muscle to its former tone. I have obtained the best effects from the use of Mariani’s Wine. From personal information given me by this reliable pharmacist, these results are attributable to the excellent quality of the coca leaves and of the wine which he uses in its manufacture.”

TREATMENT OF LARYNGO-PHARYNGITIS.—The following are Coupard’s formulæ:

By atomization five minutes night and morning:

Acid, carbolic,	. . . . .	grs. xv.
Potass. bromid.,	. . . . .	℥ jss.
Aquæ,	. . . . .	O j.

And as a gargle:

Acid, carbolic,		
Zinc, chlorid.,	. . . . .	āā grs. xv.
Syrup, morph. hydrochl.,	. . . . .	℥ iv.
Inf. cocæ fol.,	. . . . .	℥ viiss.

—*Rev. de Thérap.*

Book Notices

EVACUANT MEDICATION (Cathartics and Emetics). By Henry M. Field, M. D., Professor of Therapeutics, Dartmouth Medical College; Corporate Member Gynecological Society of Boston, etc. 8vo. Pp. 288. Cloth. Price, \$1.75. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co.

This little work contains the matter which has been addressed to medical students for a number of successive years. The object of publication is that the instruction, which has been limited to only a few comparatively, may be diffused among a larger number. The material has been largely gathered from the clinical observation of an active general practice; and also from a digest of innumerable clinical monographs and notes, chiefly from the French and English and American journals and standard medical works.

The author takes up the most prominent articles of the two great classes of medicines—cathartics and emetics—and treats each one at considerable length, describing its history, action, indications, etc. The first cathartic discussed is *oleum tiglii*—croton-oil. It is stated of it that it is an oil expressed from seeds produced by a small tree growing in the East Indies, belonging to nat. ord. Euphorbiaceæ. It is said that croton seeds were used in medicine in the seventeenth century, and again introduced by English medical officers in the early part of the present; but the oil was not used until about 1820. After a few more statements in regard to its history, the author considers its *special action*, saying that, while apparently possessing the properties of a bland vegetable oil, croton-oil, almost at once upon contact with the mucous membrane, sets up an irritation, causing an acrid, burning sensation deep in the throat. Upon the glandular structure of the intestines it acts with such energy that it has been classed with hydrogogues; and yet it so augments peristalsis that its operation may be attended with violent colic. "It is, therefore, a representative of materials of its class—very few in number—which bring into action in a very positive and in about equal degree the two elements concerned in its purgative influence." After further remarks under the same head, the next subject considered in regard to the oil are its *contra-indications*, of which there are two

mentioned: 1. An inflamed state of any part of the intestinal tract; 2. The past experience of a positive idiosyncrasy.

Following the consideration of the contra-indications, the *toxic action* of croton-oil is treated. After this is considered the *administration*. With apoplectics, it is stated, the usual full dose of one or two drops may be placed directly upon the tongue far back in the mouth; but, in other cases, the particles of the oil, subdivided, should be covered up, as in pill or emulsion form.

Next is considered the *external use of croton-oil*; but we have not the space to follow the author in his treatment of this division. We have given an outline of his discussion of croton-oil in order to exhibit his mode of treating the various prominent articles of the *materia medica*. Of course, other purgative medicines, that are more generally employed, are treated at greater length, and under a greater number of divisions.

It will be perceived that the work is very practical in its character, it having been the special purpose of the author to provide a practical study of the individual action, application and contra-indications of the more prominent cathartic agencies—a work which can not well be undertaken in connection with a general treatise upon *therapeutics and materia medica* for want of space, and which will not, unless we are mistaken, be found in any other treatise, either in the English or other languages commonly familiar.

Students and practitioners will find in the work much interesting and valuable matter. An attentive perusal of it will afford much profit.

EARTH AS A TOPICAL APPLICATION IN SURGERY. Being a full Exposition of its Use in all the Cases Requiring Topical Applications Admitted in the Men's and Women's Surgical Wards of the Pennsylvania Hospital during a period of six months in 1869. By Addinell Hewson, M. D. Second Edition. With Four Photo-relief Illustrations. 8vo. Pp. 309. Philadelphia: The Medical Press Register Co. Cincinnati: R. Clarke & Co.

Dr. Hewson, in this work, demonstrates the great efficacy of earth as a surgical dressing, showing its great power as a deodorizer and its beneficial effects in the healing of inflamed, ulcerated surfaces.

The first case upon which the author tried the earth was a hearty, robust, temperate German, of middle age, who had suffered a compound comminuted fracture of both bones of the leg. A resection had been performed for the reduction of a deformity, which had failed to be reduced previously in consequence of a muscular resistance. Ulceration with sloughing and very great discharge of most offensive pus existed, which filled the ward with its stench. An application of earth rich with yellow clay was made to the diseased parts. As a consequence, there was immediate amelioration of all the symptoms. The offensive odor was destroyed, the pain greatly lessened and the ulcerating parts immediately began to assume a healthy appearance. The success in this case induced the Doctor to try the earth in a case of painful varicose ulcers. The benefit which followed was most marked. Continued success induced him to make use of earth as a primary dressing after an operation. The first case was one of the removal of the whole mammary gland for scirrhus. The wound inflicted involved over forty square inches of space. Immediately after the operation the patient suffered greatly from burning pain. This pain was not only relieved by covering the wound, after it had coaptated, with the earth, but the patient also made a rapid recovery. By the seventh day she was up and about the ward; and it was then noted that union had taken place between the edges of the wound throughout, save at one point, from which there was then discharging an ichorous pus. From this point there was removed the next day (the eighth) a shred of oakum, some of which he had used instead of sponge in cleaning out the wound of coagula, at the first dressing. This had been acting as a foreign body.

The work contains the reports in full detail of ninety-three (93) cases, of every variety of surgical lesion, treated by the application of earth. So wonderful was the benefit that followed upon the treatment, that we feel that every physician should inform himself in regard to the therapeutic properties of this humble remedy and make use of it. We certainly most cordially recommend the work to the attention of our friends and subscribers. About a third of the volume is taken up in considering the *modus operandi* of the action of earth in surgery.

A PRACTICAL TREATISE ON IMPOTENCE, STERILITY AND ALLIED DISORDERS OF THE MALE SEXUAL ORGANS. By Samuel W. Gross, A. M., M. D., LL. D., Professor of the Principles of Surgery and Clinical Surgery in the Jefferson Medical College of Philadelphia, etc. Third Edition. Thoroughly Revised. With Sixteen Illustrations. Large 8vo. Pp. 172. Cloth, \$1.50. Philadelphia: Lea Brothers & Co. Cincinnati: R. Clarke & Co.

This work has met with very considerable favor, as shown by the fact that it has reached a third edition, having been out of print for several months before the last edition was prepared. Besides, it has been translated into the Russian language.

In a compact form, and with as little detail as possible, the work is prepared to present to the physician all the practical and scientific information that the subject affords. The author seems to have given impotence, sterility and allied affections of the male sexual organs especial study; and, consequently, he has been able to embody in the different chapters very much resulting from his own observation and experience. He has found, for instance, on investigation, that impotence and spermatorrhea, instead of being functional diseases of the testicles, as commonly supposed, depend upon reflex disturbances of the genito-spinal center, and are almost invariably induced or maintained by appreciable lesions of the prostatic portion of the urethra, which, as they may not be perceived by the patient, are frequently overlooked by the physician.

The chapter on sterility will be found interesting. In this chapter the abnormal conditions of the semen and the causes which deprive it of its fecundating properties are fully considered. The author states that, from answers to letters addressed to many of the most prominent writers on gynecology in this country, he finds that, with but few exceptions, the woman alone commands attention in unfruitful marriages. He says, however, that the importance of examining the husband before subjecting the wife to operation will be best appreciated when he states that he is, as a rule, at fault in at least one instance in six.

As the work contains a large amount of valuable, practical information, the general practitioner will find it well worth his careful study.

ELEMENTARY MICROSCOPICAL TECHNOLOGY: A Manual for Students of Microscopy. In Three Parts. Part I. The Technical History of a Slide, from the Crude Material to the Finished Mount. By Frank L. James, Ph. D., M. D., President St. Louis Society of Microscopists; Member of American Society of Microscopists, etc. Large 8vo. Pp. 107. St. Louis: St. Louis Medical and Surgical Journal Co.

The volume which we have on our table constitutes Part I of a work on General Microscopical Technology, and details the Technical History of a Slide, as stated upon the title-page, from the crude materials up to the finished mount.

Almost all the works upon microscopy met with treat upon every subject pertaining to it. Usually the instrument itself is first considered and described. Then the science of optics is discussed—explaining the construction of objectives, the various powers usually employed, what is meant by flatness of field, penetration, resolution, angle of aperture, etc. After devoting many pages to these subjects, and consuming not a few in describing the mode of testing the quality of the different powers, and how the various degrees of angle of aperture affect resolution, then, maybe, histology will be taken up and considered, followed by the treatment of other subjects. In each of these works the whole range of microscopy is usually treated.

In the volume of Dr. James, which we have before us, Microscopical Technology alone is discussed, describing those processes and appliances by means of which objects are prepared for examination under the microscope, and permanently preserved for future reference and use. The author, in this work, has undertaken the preparation of a manual modeled after an ideal, in which nothing should be taken for granted; no previous acquaintance, on the part of the student, with the subject-matter presupposed, and in which each step of the work, each process and manipulation, should be explained in orderly sequence.

In describing the instruments which are employed in mounting, he has confined himself to those which are absolutely essential and constructed as simply as possible, leaving students to learn about more complicated appliances from more elaborate text-books.

Dr. James sets out in his work by demonstrating that

"the processes through which an object passes from its crude or natural condition up to the finished slide, ready for the cabinet, vary according to the nature of the material. They may be grouped under six general headings, viz.:

"a. Preserving in the mass.

"b. Hardening those substances which are too soft, and softening those which are too hard, to be cut with the section knife.

"c. Imbedding.

"d. Section cutting.

"e. Staining.

"f. Mounting on slips.

"Some objects have to pass through all of these processes."

As probably at this time twenty young physicians, after graduating, procure a microscope for the purpose of continuing their studies where one did ten or twelve years ago, we have no doubt there will be a great demand for the work of Dr. James. We have no hesitation in asserting that it is the best microscopical work with which we are acquainted, to assist the student in prosecuting the study of histology, pathology, etc.

A PRACTICAL TREATISE ON OBSTETRICS. Vol. II (4 Vols). The Pathology of Pregnancy. By A. Charpentier, M. D., Paris. Illustrated with Lithographic Plates and Wood Engravings. This is also Vol. II. of the *Cyclopedia of Obstetrics and Gynecology* (12 Vols.), issued monthly during 1887. New York: William Wood & Company.

We noticed Vol. I. of this work in the April issue of the MEDICAL NEWS. The appearance of Vol. II. so soon after the publication of the first volume, shows that the publishers are making no delay in getting the work out.

We will here quote what we said of the work when noticing the first volume: "This work of Dr. Charpentier is undoubtedly the most complete work upon obstetrics in any language of the world. We do not say this for the purpose merely of praising it, for we have no interest in it other than to speak what we believe in regard to it; but we make the assertion having full confidence that an examination of it by any one will confirm the statement. From the number of volumes that will constitute the work, and the number of pages in each one, it will be perceived that, in the

whole work, every subject pertaining to obstetrics will be fully treated—that no topic, however collateral in its nature it may be, will be omitted.”

The work is not an exposition of Dr. Charpentier's views and experiences merely, but of those of the obstetricians of every civilized nation who have published their views and experiences. It seems to us that, for a long time to come, it will be regarded both in this country and in Europe the work upon obstetrics *par excellence*.

Volume II. is devoted entirely to the Pathology of Pregnancy, and contains six chapters.

Chapter I. treats of epidemic diseases, colic, cholera, intermittent fever, typhoid fever, syphilis, hysteria, epilepsy, etc.

Chapter II. treats of the lesions of digestion, respiration, pytalism, albuminuria, eclampsia, puerperal convulsions, neuralgias, paralyses, intellectual disorders, diseases of the skin, displacements and distortions of the uterus, etc.

Chapter III. is devoted to diseases of the ovum, the decidua, placenta, and amnion.

Chapter IV. considers diseases of the fetus, fevers, inflammatory affections of various organs, disturbances in the circulatory system, diseases of the bones, death of the fetus, etc.

Chapter V. describes miscarriage, its causes, phenomena, prevention and treatment.

Chapter VI. is devoted to the consideration of extra-uterine pregnancy.

From the outline we have given of this volume, it will be perceived that it is fuller in the treatment of all subjects pertaining to obstetrics than any obstetrical work heretofore published.

MEDICAL ELECTRICITY: A Practical Treatise on the Application of Electricity to Medicine and Surgery. By Roberts Bartholow, A. M., M. D., LL.D., Professor of Materia Medica, General Therapeutics and Hygiene in the Jefferson Medical College of Philadelphia; Member of the American Philosophical Society, etc. Third Edition. Enlarged and Improved. With 110 Illustrations. 8vo. Pp. 304. Cloth. Price, \$2.50. Philadelphia: Lea Brothers & Co. Cincinnati: R. Clarke & Co.

Electricity seems to be coming to be appreciated more

and more as a therapeutic agent every year. But a few years ago only a few comparatively employed it in the treatment of diseases; but at the present time very many employ it, and there are few who would not regard themselves deprived of an important means of cure if in any way hindered from using it.

Of the number of excellent works now before the medical profession on the use of electricity in medicine and surgery, there are none held in higher esteem than that of Professor Bartholow. And when we come to examine it we are not at all surprised; for, while it is small and possesses the merit of being inexpensive, we find that it sets forth very fully and clearly all the principles involved in electricity as a therapeutic agent, and, in a very practical manner, gives instruction in the application of it. As stated by the author, it may be regarded as the exposition of electricity for remedial purposes, made by a medical practitioner for the use of other medical practitioners. There is nothing omitted in explanation, either as regards the use of the battery, or the nature and character of the diseases to be treated, which is necessary for the physician to know in order to be successful, and without a knowledge of which he would be disappointed in his expectations, making a failure in treatment.

It has been the aim of the author to prepare a work so simple in statement, that a student without previous acquaintance with the subject of electricity as a remedial means may readily master the essentials; so complete as to embrace the whole subject of medical electricity, and so condensed as to be contained in a moderate compass, and he has succeeded in his object certainly in an admirable manner. He has assumed an entire unacquaintance with the elements of the subject; and, consequently, the student and practitioner can expect a full and lucid treatment of the method of applying electricity to meet the indications of disease.

THE PHYSICIAN'S DOSE AND SYMPTOM BOOK. Containing the Doses and Uses of all the Principal Articles of the *Materia Medica* and *Officinal Preparations*, Arranged in Alphabetical Order, etc. By Joseph H. Wythe, M. D., Professor of Histology and Microscopy, Cooper Medical College, San Francisco; Au-

thor of the *Microscopist*, etc. Seventeenth Edition. Completely Rewritten and Enlarged. 18mo. Pp. 226. Cloth. Price, 75 cents. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co.

This little work has certainly met with no little favor from the profession; for, during the twenty-five years it has been before them, it has gone through seventeen editions. The last edition has been both enlarged and entirely rewritten.

Besides containing the doses and uses of all the principal articles of the *materia medica*, it has also a table of weights and measures; rules to proportion the doses of medicines; common abbreviations used in writing prescriptions; alphabetical list of *materia medica*; preparations and modes of administration; list of incompatibles; hints on prescription writing; table of poisons and antidotes; hints on treatment; table of symptoms.

The work is *multum in parvo*, and, as now offered to the profession, will undoubtedly be more acceptable than ever.

BONE-GRAFTING.—At the French Congress of Surgery, M. Poncet expressed the belief that it would be possible to reconstruct a destroyed bone by means of osseous grafts. It is not after cicatrization that the grafting can be expected to succeed; it is at an anterior period, when active healing of the wound is taking place, that the grafting can be made under the most favorable conditions. M. Poncet then cited the case of a child, eleven years of age, from whom a long sequestrum of the tibia had been removed after osteomyelitis. This sequestrum measured twenty-five centimetres in length. One month after the operation the first attempt at grafting was made. The fragments were taken from a newly-born infant which had just died. Antiseptic dressing was used, and the limb was kept at rest with plaster splints. Twelve days later the dressing was changed; there was slight suppuration. New grafts, composed of four bony fragments were then procured from a young kid. These were implanted in fleshy granulations and only one was eliminated. Six months after the operation there was a solid bony mass, thirty centimetres in length; the child became strong, and able to walk.—*British Med. Jour.*

Editorial.

MEDICAL EXPERT TESTIMONY.—The *Commercial Gazette*, of Cincinnati, has a very smart editorial writer who endeavors to show, about once a week on an average, that medical men know but very little about their own profession. In a recent issue of the paper was a lengthy article in which this writer proved to his satisfaction that physicians do not know any more about insanity than other people. This is the one hundredth article by the same writer that has appeared in the *Commercial Gazette*, to the same effect.

The writer in the article to which we allude says: "Nothing in medical science enables the physician to know the mental condition. The scientific parts of his profession—*anatomy and physiology*—give him no evidence. The art of diagnosis, with its examining of the pulse, the tongue, the dejections, its auscultation and all its instruments of precision, gives him no testimony on the mind. He has no other way than other people of knowing anything about it. He may say that a physical derangement suggests a mental, but he does not know, and it would hardly do to say that if a man's belly aches his mind is off its base."

What a sapient gentleman the writer must be! According to his testimony a man who has never visited Paris is as competent to tell all about it—to form a judgment in regard to the resources, the character of its people, the prevalence of wealth and poverty among its inhabitants, its magnificence and beauty, etc., as one who has been there and, at his leisure, carefully studied all of its features. This certainly must be his view; for without knowing anything about medicine as a science and an art, he proposes to define precisely its capabilities. He states that the scientific parts of it, *anatomy and physiology*, give the physician no evidence of the mental condition. Why, it is due to anatomical and physiological knowledge that we know there is such a viscus as the brain, and that it is the organ of the mind, the seat of the intellectual faculties.

All the knowledge of mental phenomena that S. R. R. or any other person possesses has been derived from medical men's study of the brain, the spinal cord and the nerves proceeding from them. We will be greatly obliged to him if he will point out to us a single fact that he knows in regard to

the mind that was not derived in this manner. And as all the information in regard to the normal action of the intellectual faculties has proceeded from the study of the physiology of the brain and nervous system, so a knowledge of insanity—the abnormal display of mental phenomena—has been derived from researches of medical men of the pathology of the brain and nervous system. As regards insanity, one of the most eminent physiologists and psychologists of the present day says: "It may be unhesitatingly affirmed that there is nothing in the psychical phenomena of insanity which distinguishes this condition from states that may be temporarily induced [as by gases and other poisons circulating in the blood] in minds otherwise healthy."

It having become acknowledged that mental actions had their source in the brain, the investigations of physiologists proved that there was a sympathetic system of nerves and a cerebro-spinal system—the former administering solely to the functions of organic life. Then it was shown that there were nerves of sensation and nerves of motion—the latter carrying from the brain the messages of volition to the muscles, the former bearing the impressions received from the outside world to the brain. From this the surgeon knows that if he divides a sensory nerve fiber, his patient will have no feeling in those parts where it is distributed; but if he should cut instead a nerve of motion only, all the muscles that it supplies will be paralyzed, but feeling will be intact. Have not these discoveries thrown some light upon matters of sensation and volition, which are certainly involved in mental phenomena? But physiologists have done more still. They have discovered that there is a sensorium at the base of the brain, which is the center of sensation, and that ideation has its center in the gray substance of the brain, which is upon its surface. Certainly we have here some knowledge of mental action.

But it would take more space than we have to spare to relate in detail the progressive development of the physiology of the brain and nervous system, with also that of the pathology of the same organs; for as these were unfolded, so was there developed a knowledge of the normal and abnormal operations of the mind. In fact, instead of discussing further the statement of S. R. R. that nothing in medical science enables the physician to know anything about the mind, we feel rather we ought to apologize for taking up any space in replying to such a preposterous utterance.

From the time of Hippocrates to John Locke, and from the time of John Locke to the present time, everything known about the mind, normal and abnormal, has been developed by the investigations of medical men.

COMPENSATION OF EXPERTS.—In an editorial in a recent issue of the *Medical Record*, of New York, there occurs the following statement: "In 1875 the Supreme Court of Alabama confirmed a fine imposed upon a physician who refused to give expert surgical testimony on the ground that he had not been remunerated therefor. In 1879 the Court of Appeals of Texas held a somewhat similar doctrine, viz., that a medical expert could be compelled by the Court to testify as to the results obtained by a post-mortem examination. The law of Indiana is that experts may be compelled to appear and testify to opinions without payment other than that allowed to ordinary witnesses. . . .

It must have been from experiencing the hardships of decisions which prevail in Alabama, Texas, etc., that leads a correspondent to write a most emphatic protest against the decisions of judges who do not allow extra compensation for medical experts, and leads him to suggest the bringing out of a test case."

But the *Record* says that a test case is not needed; for that "in the present state of the matter it can be only ignorant or grossly partisan judges who refuse to allow such compensation, except, of course, in the States or Territories in which a law, like that passed by the stupid legislators of Indiana, exists." It states that a majority of decisions favors the view that medical men should be amply compensated for giving expert testimony.

It may be that the *Record* is correct in the statement that, in a greater number of instances, when the subject has been brought before a court in regard to compelling a medical man to give expert testimony, it has ordered that he should be paid; but such a decree of a court does not constitute a decision that a physician can not legally be compelled to be a witness for ordinary compensation, and answer questions which could be correctly answered only by a medical man, by reason of his peculiar acquirements—the knowledge thus qualifying him having cost him great expenditure of time, labor and money. We have no doubt that there have been many instances in which judges, regarding a physician's

knowledge as his property, from a sense of justice have employed their authority in compelling parties to compensate him before using it. But, if courts have ordered payment of experts from a sense of justice only, it must still be regarded an open question whether or not an expert is liable *legally* to fine or imprisonment, or both, if he should refuse to testify unless paid.

We do not agree with the *Record* that it is only ignorant or grossly partisan judges who refuse to allow compensation to a medical expert. Dr. Darby, of Warren County, Ohio, was sent to jail because he refused to give expert testimony on a trial. He was released from jail at the close of the trial, and a fine imposed upon him. He took an appeal to the Circuit Court, before which it was heard about two weeks ago. Now, two of the three judges of this Court we happen to know, Judges Cox and Swing. These two men are neither ignorant nor partisan. Judge Cox, the presiding Judge, has sat on the bench for many years, and is regarded as a highly intelligent and very conscientious man. There is not a judge probably in the United States who is better conversant with the law or more familiar with decisions. The Circuit Court sustained the decision of the Court below. Dr. Darby has appealed from this decision, we understand, to the Supreme Court of the State.

We have not the slightest doubt but that the Judges of the Circuit Court, in Dr. Darby's case, would have decided that *he ought to have been paid*, if the question had been brought before them in that form, and would undoubtedly have ordered that the party who desired his testimony should make payment to him before using it, if the case had been brought before them in the first place. When the question came before the higher Court, it then had to be viewed from a legal standpoint, and from that standpoint it was decided. We hope that Dr. Darby will not get discouraged, but will go on with his case until he gets a decision from the Supreme Court of the State; for the question has not as yet been passed upon by a Supreme Court, and consequently its *legality* continues open.

We presume that the correspondent of the *Record* desires a test case in order to have the *legality* of the question settled whether or not a Court can compel an expert to give testimony without extra compensation, and not the mere *justice* of it. We think that the case of Dr. Darby is just such a one as the correspondent wishes, and he should,

therefore, give Dr. D. assistance, which would be very agreeable to him.

THE CHINA MEDICAL MISSIONARY JOURNAL.—We are in receipt, by mail, of a medical journal with this title. The copy received is Volume I, Number 1, dated March, 1887. The editors are J. G. Kerr, M. D., Canton; J. K. Mackenzie, M. R. C. S., L. R. C. P., Tientsin; E. Reifsnnyder, M. D., Shanghai; Rev. L. H. Gulick, M. D., Shanghai, Business Manager. Each number of the *Journal* will contain forty pages, and there will be four issued during the year, making it a quarterly, the price being \$2 a year. The object of the publication, it seems, is to afford an organ for "The Medical Missionary Association of China." But while it will permit the members of the profession of China to interchange ideas with one another, it will also subserve another very high purpose, which is exhibited in the following quotation which we copy from the SALUTATORY: "We find prevailing in China not only false systems of religion, but false theories of medicine, and while we aim to give them a system of religion founded on eternal truth, we all endeavor to introduce a knowledge of the sciences on which is founded a rational system of medical practice. Medical education is, therefore, a legitimate department of our work, and we will do no less good in training native physicians than in ministering directly to the suffering and diseased. We may, therefore, state the objects we have in view, as follows:

"1. Healing the sick in hospitals, dispensaries and at the bedside.

"2. Training native physicians and nurses.

"3. Making both of these objects auxiliary to the spread of the gospel, and the establishment of the Christian Church in China.

"The Medical Missionary Association will be a bond of union among a body having a common object in view, and the *Journal* will be a means of inter-communication which, we trust, will prove a great benefit to all. Our number is increasing every year, and the department of work which we represent will, in the future, be one of the most important of the agencies by which the millions of China are to be won for Christ."

The managers of the *Journal* certainly could not have heard of the medical journal published in the empire neighboring to China, Japan. We have been receiving in exchange for

two years or longer directly from Tokio, Japan, the *Tokio Medical Journal*, and yet our Chinese cotemporary, under the head of Items and News, says: "If we mistake not, The *China Medical Missionary Journal* is the first medical missionary journal published in heathen lands." Still, the editors may claim that the assertion is correct, as the Japanese journal is not connected, we believe, with any missionary association, although some of its supporters may be connected with some of the missions in Japan.

We learn from the *Journal* that "of 150 medical missionaries to China the majority have been from America. Among that number some 27 are ladies. At least 33 are "Rev." as well as "M. D." The Presbyterian Mission sends the largest number, next the American Methodist Churches. Almost one-fifth of the number have at one time or other worked in or about Canton. Since 1850 only four years escaped without sending a medical missionary to China; and from 1834, the year of Dr. Peter Parker, the Pioneer, down to 1850, only five years; 1882 'takes the palm' in having sent its dozen."

The *Journal* has a list of medical missionaries in China, Corea and Siam, giving the names and station of each one. It is not claimed that the list is correct, but it is as near correct as it could be made with the information on hand. From this list we learn that there are at present in China, Corea and Siam *seventy-nine* (79) missionary physicians. Of these thirty-three (33) are from Great Britain, and forty-six (46) from the United States. Two of the medical missionaries from Great Britain are married ladies. Thirteen are ladies from the United States—one married and twelve unmarried. There are eight English Presbyterian medical missionaries, one of whom is a "Rev.", none ladies. There are seventeen Presbyterian medical missionaries from the United States—three having "Rev." before their names, two being unmarried ladies. Scotland sends three Presbyterians.

Besides miscellaneous matter in the way of Editorial, Correspondence, Notes and Queries, Items and News, the Constitution and By-laws of the Medical Missionary Association of China, etc., the *Journal* has well written and interesting articles, entitled as follows: The Medical Missionary Association; The Evangelical Side of a Medical Mission; Cancer of the Pancreas, not Diagnosed During Life; Dislocation of the Shoulder; A Case of Rupture of the Bladder

Wall. Besides these articles there are two articles in the Chinese language written by Chinamen. One is by the Rev. Mr. Wood, Chaplain to St. Luke's Hospital, of Shanghai, entitled "Medical Work as an Aid in Preaching the Gospel." The other is by the Rev. Mr. Yen, an Episcopal minister, entitled "The Nature and Use of the Medical Association and of This Medical Journal." As we do not read Chinese, we take it for granted that the two articles by our celestial brethren are very able.

There seem to be thieves among the "heathen Chinees" as well as in Christian countries, for it is stated in the *Journal* that Dr. Main's Hospital at Hangchow was robbed, on the 19th of February last, of all its surgical instruments, scarcely a scalpel being left. The loss is estimated at \$800. We are glad to learn, however, that a number of contributions have been sent in by foreign and Chinese friends, amounting to several hundred dollars, for the purpose of repairing the loss, though not as yet covering it.

The editors state that they purpose sending copies of the first number of the *Chinese Medical Missionary Journal* to individuals in the home lands, trusting that they will not only become subscribers, but that they will recommend it to others, and so assist them in securing an assured support. Payment may be made in postal orders from England and Europe, or by postal stamps from the United States.

We really hope that many subscribers of the *MEDICAL NEWS* will become subscribers of the *Journal*. By doing so they will both be aiding the cause of missions (the association publishing the *Journal* is composed of physicians of all evangelical denominations) and the advancement of civilization, intelligence and human progress.

IDEAS OF THE BEING AND ATTRIBUTES OF THE DEITY.—Dr. William B. Carpenter, the late eminent English physiologist and microscopist, who, besides having been the author of a work upon Comparative Physiology, held in high repute by scientists, was also the author of a work upon Human Physiology and a work entitled Revelations of the Microscope—both of which passed through many editions and were extensively adopted as text-books in medical colleges in England and in this country—in discussing "Ideation Generally" in his work on the *Principles of Mental Physiology*, page 245, says:

"Closely connected with many of the foregoing tendencies

to thought, and arising in most minds from some or other of them by the very nature of our physical constitution, are those ideas which relate to the Being and attributes of the Deity. There is, in fact, no part of man's physical nature which does not speak to him, when it is rightly questioned, of something beyond and above himself. The very perception of *finite* existence, whether in time or space, leads to the idea of the Infinite. The perception of *dependent* existence leads to the idea of the self-existent. The perception of *change* in the universe around leads to the idea of an unseen Power as its cause. The perception of the *order and constancy* underlying all those diversities which the surface of nature presents, leads to the idea of the unity of that power. The recognition of intelligent will as the source of the power we ourselves exert, leads to the idea of a like will as operating in the universe. And our own capacity for reasoning, which we know not to have been obtained by our individual exertions, is a direct testimony to the intelligence of the Being who implanted it. So are we led from the very existence of our moral feelings to the conception of the existence of attributes, the same in kind, however exalted in degree, in the Divine Being. The sense of truth implies its actual existence in a being who is Himself its source and center; and the longing for a yet higher measure of it, which is experienced in the greatest force by those who have already obtained the truest and widest view, is the testimony of our own souls to the Truth of the Divine Nature. The perception of *right*, in like manner, leads us to the absolute Lawgiver who implanted it in our constitution; and, as has been well remarked, all the appeals of innocence against unrighteous force are appeals to eternal justice, and all the visions of moral purity are glimpses of the infinite excellence. The aspirations of the more exalted moral natures after a yet higher state of holiness and purity, can only be satisfied by the contemplation of such perfection as no merely human being has ever attained; and it is only in the contemplation of the Divine Ideal that they meet their appropriate object. And the sentiment of beauty, especially as it rises from the *material* to the *spiritual*, passes beyond the noblest creations of art and the most perfect realization of it in the outward life, and soars into the region of the unseen, where alone the imagination can freely expand itself in the contemplation of such beauty as no objective representation can embody. And it is by combining, so far as

our capacity will admit, the ideas which we thus derive from reflection upon the facts of our own consciousness, with those which we draw from the contemplation of the universe around us, that we form the justest conception of the Divine Being of which our finite minds are capable. We are led to conceive of Him as the absolute, unchangeable, self-existent—infinite in duration—illimitable in space—the highest ideal of truth, right, and beauty—the all-powerful source of that agency which we recognize in the phenomena of nature—the all-wise designer of that wondrous plan, whose original perfection is the real source of the uniformity and harmony which we recognize in its operations—the all-benevolent contriver of the happiness of his sentient creatures—the all-just disposer of events in the moral world, for the evolution of the ultimate ends for which man was called into existence.”

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION, the representative society of the West and South, is likely to have a grand meeting this year. The President, Dr. I. N. Love, of St. Louis, and Secretary J. L. Gray (1558 Wabash Ave.), of Chicago, are making extra efforts and are being ably aided by the members in various sections of the country.

The Committee of Arrangements, of which Dr. Dudley S. Reynolds, of Louisville, is Chairman, and Dr. Joseph M. Matthews, Secretary, has made the following announcement:

“The next annual meeting of the Mississippi Valley Medical Association will be held at Crab Orchard Springs, Ky., July 13, 14, 15, 1887.

The territory embraced in its membership includes the entire country west of the Allegheny Mountains.

The qualifications for membership are the same as required by the American Medical Association, except the admission fee, which is \$2.

As the Association embraces such a wide expanse of territory as to make it almost a national body, the Committee of Arrangements has invited a number of distinguished gentlemen in the East to read papers; many of them accepted and will be present at the meeting.

It is earnestly desired that you favor us with a paper, and your influence by way of inducing members of the profession in your vicinity to attend the meeting.

Major W. T. Grant, President of the Crab Orchard Springs Co., has kindly reduced the rates to the nominal sum of \$1.50 per day for members and their families in attendance at the meeting.

The place is one of the most delightful resorts in the world, and it is easily accessible by railway lines from every direction.

For particulars as to the meeting, address either the Chairman or Secretary of the Committee.

WOMEN AND THEIR ODORS.—Hysterical women under sexual or other excitement exhale an agreeable odor, say several eminent neurologists. A French writer goes further and says that in early youth many women exhale a perfume whose entrancement extends even to the clothes they have cast aside for the wash. Again, "in general hospitals one is never deceived, the female wards smell of butylic acid." With all due respect to distinguished experts in olfaction, it appears necessary to say that the foregoing is more or less preposterous nonsense. Female wards do not smell of butylic acid, and the perfume which extends to the clothes that have been given to the wash is more liable to be perspiratory, axillary, and leucorrhœic than an entrancing emanation from Araby the Blest. Those who have observed an agreeable odor in women under sexual excitement are liable to the accusation of suffering from subjective disturbances at the time.—*Medical Record*.

AMMONIA IN ACUTE ALCOHOLISM.—Dr. A. G. Glinsky (*Russ. Med.*) injects a mixture of liquor ammon., with from two to six parts of water hypodermically into the epigastric or dorsal region. He gives a case where the patient was in a seemingly hopeless comatose state, but recovered full consciousness in three minutes after the injection.

THE ninth annual Congress of the American Laryngological Association will be held in the hall of the Academy of Medicine, New York, May 26th, 27th, and 28th. The profession is cordially invited to attend.

THE second annual meeting of the Association of American Physicians will be held in the Army Museum at Washington, D. C., June 2 and 3, 1887.

THE CINCINNATI MEDICAL NEWS.

VOL. XX. No. 234. }
Old Series.

JUNE, 1887.

{ VOL. XVI. No. 6.
New Series.

Original Contributions.

Mind in Its Relation to the Healing Art.

BY C. H. SPILLMAN, M. D., HARRODSBURG, KY.

MAN, being of a compound nature, a rational soul inhabiting a material fabric, united by a vital principle, we apprehend that the moral philosopher has too often studied the mental faculties without sufficient reference to the body; while the physician has looked too exclusively to physical phenomena, and especially to physical causes, in the production of bodily disease. Yet the bodily functions are no less influenced by the state of the mind, than are those of the mind by the state of the body.

It is on account of this wonderful and inexplicable connection between mind and matter, that we rarely see, in civilized life, the simple effects of either moral or physical causes of disease. The moment an effect is produced by either class of agents, it becomes a cause in its turn, and thus action and reaction are continually going on between the mental and corporeal functions.

The loss of a relative, the failure of a speculation, a sudden reverse of fortune, will disorder the stomach through the medium of the mind; or, the ingestion of food, either defective in quality, or inordinate in quantity, will derange the mind through the medium of the stomach. Here, the brain and stomach act and react upon each other, producing a complication of phenomena, difficult to comprehend and unravel. And if we consider the number of organs in the body, continually

sympathizing with each other, and the host of moral and physical causes which are daily calling these sympathies into play, we need hardly wonder at the intermidable list of indescribable diseases, intellectual and corporeal, presented to the eye of the practitioner, at every step of his progress.

The field which we propose to occupy to-day, but a very few minutes, is measurably unexplored. We have long been convinced that the mind, as a vital agent, in the production and cure of disease, has not received from the profession the consideration to which its importance justly entitles it.

Allow us to say, Mr. President, that the most pressing need of our art is a more intimate acquaintance with the economy of our own being,—a more thorough knowledge of the laws of the human constitution, in its threefold aspect of spirit, life and matter; nor until we learn to look within for the sources of many diseases “that flesh is heir to,” and their remedies as well, shall we be able to make satisfactory advances in the efficiency of our art. The couplet of the ancient philosopher contains a pregnant truth; and commends itself to the members of our profession with peculiar emphasis:

“Know thyself! Presume not God to scan;
The proper study of mankind is man.”

And what is man? In pride, and beauty, and perfect symmetry, the most complete of all the Creator’s works; and, as cognizable by the senses, a material fabric—a frail tenement—co-ordinated by specific endowments, with the materiality of this planet, as to origin, growth, development and decay; in common with all animated nature, under the operation and subject to the laws of protoplasm:—after a brief existence, the vital cord is severed, and the fabric speedily resolved into its original elements.

We have here reached a point where the finite ends and the infinite begins.

Man is an animal—an exquisitely organized animal; but he is something more than protoplasm, born of “spontaneous generation and natural selection.” No mere animal yet known to natural history, however complex and wonderful in mechanism, can enter the spiritual domain set forth in the words, I think, I feel, I speak. Self-consciousness alone, which is the science of reason, infuses itself into that problem. The substantive existence, therefore, of a self-acting soul, inexplicably united to the body, through the vital principle, which it deeply affects and controls, is man’s dis-

tinguishing prerogative. And the complete subordination of the physical to the mental man will appear in the sequel. Indeed, man is the incarnation of thought. It is not improbable that the mind determines the molecular movements in the embryonic state. It is certain that it molds the features during subsequent growth and development: and, at maturity, a discerning mind can read the character by the peculiar cast of the features—as a rule;—subject, however, to variations arising from intercurrent influences, as the accidents of education, hereditary influences, and other circumstances which modify the results. There is not, however, there can not be, in the abstract, any intelligible connection between the properties of the mind and the motions of the brain, without something intermediate between mind and matter—a bond of union, as it were, through which impressions upon the senses should reach the mind. We therefore find a principle in universal operation, a principle of life, implanted in every tissue of the organism, as a medium, through its property, sensibility, for transmitting impressions to the mind from eternal objects. This unseen power, that quickens all on earth endowed with life, that keeps this harp of a thousand strings in active play, in its nature and essence, is an enigma yet unsolved; though eagerly sought by the ablest created minds. This, Nature hides behind the veil. We know not if an archangel, ripe in the lore of a thousand ages, could answer the question,—what is life? better than a child. We know of its existence, its properties, and the laws they obey, by the phenomena. This is all that can be philosophically or practically useful. Thus are the properties of the mind, the properties of the vital principle, and the sensible mechanism, all mutually related to each other, and bound together by laws as precise as those more simple ones which govern the inorganic kingdom.

The science of Anthropology, to be full and complete, must therefore contemplate man in this threefold aspect:—a soul and a physical substratum instinct with life. Man, therefore, stands alone in the history of the earth, as the highest evolution of creative energy; and the phenomena are diversified in proportion to the greatest complexity of his being; and it is the mission of our profession, so to classify, arrange and utilize these phenomena, and their relationships, as to maintain the most perfect physiological integrity, until he “doffs his earthly robe, lifts the veil, and beholds the dazzling light beyond.”

If the views we have presented relative to the threefold nature of the human constitution be just, we are now prepared to discuss the proposition immediately before us, viz. : The relation subsisting between the different mental states and the vital forces ; and their agency in the production and cure of disease.

It is suggested, etiologically, under two aspects : objective and subjective.

We shall not stop here to notice, at length, those modern refined speculations which treat of mind as the effect of elevated physical organization. In all such materialistic ideas, we apprehend the wish is father to the thought, and that they are born of disquieting apprehensions of a future reckoning. This physiological fallacy has been a great drawback to this department of therapeutics ; and, we regret to say, is indorsed and actively propagated by some of the most scholarly men of the age. The great search now seems to be, for food for the senses. Man's intellectual nature, being immaterial, not cognizable by the senses, is discarded as an originating, antecedent, self-acting principle, and the consequences alone are considered. In the language of Prof. Huxley : "Matter may be regarded as a form of thought ; thought may be regarded as a property of matter." The doctrine is that it is unphilosophical to extend our inquiries beyond those phenomena which come to us through the recognized conditions of matter. It is true, Heaven alone can look upon mind in the abstract. While in our compound state all the phenomena of mind come to us through the medium of matter. To the physician, in this interesting relation, it is a most lofty, as it is a most noble, inquiry ; and however recondite, may be laid open to the understanding of all. Not that it is within the power of finite reason to comprehend the *manner* in which the mind is united to the body, or *how* it asserts its effects ; but we may look at these relations, and results, through the medium of the phenomena, and understand them as well as any proposition in physical science.

It is the peculiar duty of the physician to refute these purely physical doctrines of mind, as a most formidable obstacle to the progress of the healing art ; and to point out, as far as the phenomena will lead him into the arcana, the characteristics of mind and its relations to the body. Such an inquiry concerns, immediately, many momentous problems in the healing art.

By objective mental influences, we include that atmosphere of thought and feeling by which a patient is surrounded. There is a magnetic power exerted by the physician, and attendants, much more effective than is usually supposed. It is a moral contagion, which, according to its kind, sustains or depresses the life power. The physician should carry about with him, all through his own soul, the most perfect health of mind; which implies cheerfulness; and his patients will be infected by it, and often recover from that cause alone. Mental cheerfulness is the most contagious principle in the world. Through the faculty of perception patients often subsist upon the vital emanations which they derive from others. It is the confidence and cheerfulness of those about him that re-enforces his will power and sustains his vitality. Let all the surroundings be such as to give him confidence that he can recover—inspire him with a purpose to get well, and there will be but few deaths, except from old age or accident. We need not elaborate the thought in this presence. You are all aware of that powerful control that the mind exerts over the organism through the vital forces. We are depressed and melancholy, or gay and cheerful, just as those around us are in a like state of mind. A merry party will make us joyous, and gloomy company will oppress us with low spirits. Addresses from the pulpit, or the public hall, often devitalize the hearers from a want of life or animation in the speaker. In like manner public speakers are drained of their vitality by a dull and inappreciative audience. Some time ago I was called to see an accomplished young lady who was suddenly attacked with chorea. Her unseemly grimaces and contortions so deeply affected two young ladies who were present that in less than twenty-four hours I was called to see them both in a similar attack. This is moral contagion; and for all such phenomena there is a law, which it is the physician's province to understand; and he is the most successful practitioner who is most scrupulously observant of its sanctions. If the propagation of smallpox, cholera and typhus through atmospheric spores is a theory universally recognized and accepted, then those moral spores engendered in a sick-room, by a gloomy, despondent atmosphere, are no less deadly in their effects upon the vital energies of the system. I have learned, in my bailiwick, to dread the entrance of certain characters into a sick-chamber as I would a deadly pestilence. No more certainly will

ozone neutralize a deadly virus than will the entrance of the physician into the sick-chamber, with a pleasant smile upon his face and an air of confidence, counteract morbid agencies and inspire his patients with a reassuring hope; the causes of disease would be obviated, and thus the restorative he carries in his heart would often be more effective than any contained in his medicine case. Every depressing agency should be excluded from the chamber; and the patient's soul permeated with the sunlight of hope.

We offer, in conclusion, a few observations touching the subjective aspect of this proposition.

Our demonstration of the predominance of the intellect in the animal economy, its influences in organic and animal life, and its agency in the production and cure of disease, rests wholly on physiological grounds.

We have only time to make a simple reference to the anatomical medium through which the influences of the mind are displayed, which, for the better understanding of our subject, we may not omit.

The brain is the organ of the intellectual and perceptive functions; and, in connection with the spinal cord and its nerves, is especially designed for the uses of animal life; but, in virtue of a free intercommunication with the ganglionic system of nerves, is greatly subservient to the organic functions.

The ganglionic, or great sympathetic nerve, with its multiplied ramifications and its infinitely diversified connections with the cerebro-spinal nerves, is designed, in part, to connect together in harmonious action the involuntary organs, or those upon which life essentially depends. It is also through this nerve, especially, that the passions of the mind display their effects. It will be observed, however, that no agent, whether external or internal, whether physical or moral, whether natural, morbid or remedial, acts directly upon the structures, but simply impresses the properties of life, which are inherent in every part of the organism.

Besides this general division—the cerebro-spinal and ganglionic, which interchange manifold contributions—there are two orders of nerves: one originating in the sentient extremities, and terminating in the nervous centres, called sensitive or centripetal nerves; the other originating in the nervous centres and radiating to the circumference, called motary or centrifugal nerves. The latter are the media through which the phenomena of mind are displayed, either

for good or ill, according to existing vital states and the nature of the motion exercised.

While we would not inquire into the intrinsic nature of mind, or the nervous power, or the vital principle; no more than we would interrogate the nature of gravitation, or any other property of mere matter; yet the mental and physiological phenomena of the compound being we are contemplating afford the strongest proof that the properties of the mind, the properties of the vital principle, the nervous power and the sensible mechanism, are all mutually related to each other and bound together by laws as precise and easy to be understood as those more simple laws which govern the inorganic world. So intimate is this union, and so dependent each life upon the others, that the brain co-operates with the mind in every act of intellection.

Here is where the material and immaterial touch.

The mind is a vital stimulus; and, in all its functions, is not only dependent for its manifestations upon the vital state of its associate organ, but the influences it is capable of exerting upon it in consequence, and thence upon the whole organism, are healthful or morbid, according to the nature of the mental affection, or intensity and persistence of its action. From the co-operation of the mind and the brain in the processes of intellection, excessive exercise of the mind is often felt, injuriously, in the organs of organic life, and the resulting deterioration of the life power not unfrequently serious and permanent.

Each property of the mind bears a special relation to the nervous power, determined by its own nature. The will presides in animal life and determines voluntary motion; the passions operate powerfully in organic life, but imperfectly, and only in an involuntary manner in animal life; and as judgment, reflection and perception are but slightly felt in either life, except where excessive, when they become morbid by depressing the circulation and deteriorating the life power, it is obvious that all these causes or properties are distinct elements of the mental principle, just as irritability, sensibility, mobility, etc., are distinct elements of the vital principle. These elements when called into action, as vital stimuli, develop and modify the nervous power in ways peculiar to each, being respectively diverse in their nature and effects; some excitant, some depressant and some alterant; coinciding exactly with external physical agents, with this difference only: that the former originate in, and

the latter are reflected from, the nervous centres. The physical and the moral agents, and the nervous power which they respectively develop in the nervous centres, all stand on common ground as vital agents; and in their results upon the vital economy, the former finds its counterpart in the latter; and every degree and variety of effect may be produced by the mind upon the organic forces, in the multitudinous operations of its different properties, according to their peculiar nature; just as alcohol will exalt, veratrum depress, or mercury modify these same forces. What a wonderful system of analogies is observable between the results of physical and moral agents. They are all alike vital stimuli. Each is a modifying cause. While, in the aggregate, the causes are numberless and the phenomena complex, the results are few, and the laws they obey simple. Thus, by a recognition and proper understanding of the nervous influence, which is the tie that binds together, and the channel through which every impression, whether healthful or morbid, is transmitted to the remotest parts of the living organism, the most complex phenomena are reducible to a few general principles. These principles, when once embraced and fully understood, give an insight into the deepest recesses and illuminate the darkest labyrinth. One principle is the key to a thousand phenomena, and when new ones spring up having analogies with such as are known, the principle comes to their ready interpretation.

The relation of the mind to the body as the recipient of impressions from physical agents, through sympathetic sensibility, as well as a self-acting agent, renders this inquiry a very important one, in a practical point of view, to the practitioner of medicine. No one of experience but has witnessed the great variety of results of different mental elements upon the organic forces, according to their peculiar nature—the elevating, life-giving influence of joy, hope, confidence; just as grief, fear, despondency and all saddening emotions tend to depress the vital forces. The differences, in results, correspond with such as are witnessed in the great variety of physical agents of different physiological relationships. Of the two sources of organic stimuli, the mind must be allowed equal prominence; and the same careful regulation of one in the practice of our art is as important as that of the other.

The mental emotions, like physical agents, have each a special direction to particular parts of the organism. There

is nothing more uniformly and powerfully diuretic than fear. In all its degrees and modifications it rarely fails to increase the urinary secretion. A sudden burst of passion, either of joy or anger, may overwhelm the brain and stop the action of the heart in an instant of time. Anxiety, which has fear for one of its elements, will depress the life power, tease the kidneys, and; when long continued, has doubtless resulted in parenchymatous nephritis. Grief, if prolonged, develops a nervous power which strikes at the fountain of circulation—wears out the vital activity; and, if the subject be a female, and the source of sorrow domestic, there is a chance that it will be reflected upon the procreative organs, and result in chronic, and not unfrequently malignant, disease. Mental dejection and despondency lock up the biliary secretions—prey upon the stomach and overthrow digestion. Hope quickens the action of the heart and blood-vessels, starts the secretions with a bound and brings back the rose to the pallid cheek. Confidence reinforces the will power, co-operates as an independent agent with every means of cure, and, by its influence, yields a boon to the recuperative force.

While, therefore, the intelligent physician finds in the mental properties, an instrumentality not only prolific of disease but a source of embarrassment to his therapeutics, he feels, at the same time, that he possesses an agency from the same source, which may be rendered powerfully operative in the mitigation and cure of disease.

I am admonished, however, that I am extending this paper beyond the limits I had prescribed for myself. I can not give an exhaustive view of a subject so prolific in one short paper. A very general sketch is all that I have been able to compass, in which I have passed over many points rapidly, and dwelt only on those parts on which, from my habits of thought, I have considered myself least disqualified to offer useful suggestions.

If we would advance our mystic art; if we would seek to elevate our noble science; we must study our own being—its laws, its deep arcana; not protoplasm, with its expanding capabilities, its exquisite involution; nor *this*, animated by a principle of life; but man in his threefold aspect—spirit, life and matter; their mysterious union, their relations and dependencies. We shall here find that mind is the controlling element in the human constitution—indeed, the essential measure of true anthropology. Intellectuality is the ulti-

mate fact of human as contradistinguished from animal organism.

We have not the time nor ability, however, to elaborate this subject thoroughly. It involves the deep questions of human science, which are now engaging the attention of the most gifted minds; and the time is not far distant when revelations on this subject will exceed what is now known, as the morning twilight is excelled by the brightness of the noonday sun.

Addison's Disease, Associated with Gastric Ulcer and Perforation of the Stomach—Post Mortem.

BY N. M. BASKETT, M. D., MOBERLY, MO.

Read before the Missouri State Medical Society.

CRITICAL research, analysis and investigation have characterized the members of our profession for the last fifty years. Long study and constant labor have served to abolish many previous existing theories and to solve many apparently profound mysteries. Still, much of medicine is dark and mysterious. Many of the fields of our profession are still seen as through a glass darkly. Many interesting subjects have scarcely been elucidated, and the normal functions, as well as the pathological conditions of several organs of the human system, after patient and protracted investigation, still elude the peering eye and the analytical brain, and retain their position on the confines of knowledge as veritable *terra incognitæ*.

No organs have more puzzled the anatomist, the physiologist and the pathologist than those which are known as the ductless glands. Situated in the body in intimate anatomical association with important organs whose functions have been well defined, it is difficult to believe that they perform an unimportant part in the work of the human economy. This fact is the more apparent when we consider that the pathological conditions of these bodies almost universally exert a disastrous influence upon the vitality of the individual affected.

The suprarenal capsules are not exceptions to the principles here enunciated. Belonging to the ductless glands, their functions have not been defined. In close and intimate relation with the kidney they possess an anatomical structure

almost anomalous, or entirely so, in the human body. In size apparently unimportant, clinical facts manifest that the destruction of the organ is invariably attended with disastrous results. Still, the character of the labor which they perform in health is almost entirely unknown, and the pathology of their disease, while frequently inspected and analyzed, is still doubtful.

In 1849 Addison announced the disease which bears his name. But few facts of importance have been discovered since then concerning it. A little more thorough knowledge regarding the changes occurring in the organs during the progress of the disease, and a slightly better classification of symptoms, are all the advancement of which we can boast since Addison's time.

Addison's description was a graphic one. The bronzing of the skin, the languor, weakness and inability to perform manual labor, the small, compressible and irregular pulse, the pearly whites of the eyes, occasional nausea with vomiting and the tendency to death from asthenia, were all delineated with a master-hand.

It appears the capsules are intimately concerned in the excretion and removal from the system of some material whose retention is noxious to vitality. Whether they are anatomically associated with the sympathetic or glandular system or not, one fact is apparent, that a healthy performance of their labor is absolutely essential to health. The pigmentary deposit, if it can so be called, which ensues upon this disease, manifests the presence of material which should be eliminated. It is possible that the retention of this substance in the blood so reacts upon the nervous system as to produce the asthenia which is such a marked symptom of the disease. Or, it is possible that the capsules themselves are a storehouse of energy for the sympathetic system, and that the development of a pathological condition in them lowers the vitality of the sympathetic system, and prevents the performance of the vital functions at a proper standard. Vulpian states that the blood of the suprarenal capsules gave special reactions to various tests. Addison believed the organs were connected in function with the sympathetic ganglia. Brown-Sequard showed that by crushing the organs in the hare, death could be produced; and Kolliker has advanced the theory that the functions of the organs are dual; that of a glandular organ and a part of the nervous system.

The nature of the disease is also a mooted question.

Wilks considers it a special disease, probably inflammatory in its nature, always followed by certain results and attended with characteristic symptoms. Bristowe thinks it a cheesy degeneration of a tubercular nature, while Hartshorne regards it as a constitutional cachexia, frequently associated with scrofula, particularly scrofulous caries of the vertebræ.

The complications and associations with other diseases are given by Wilks as vascularity or apparent hypertrophy of the intestinal canal. "Brunner's glands, in the duodenum, and solitary glands in the ilium and colon," says he, "have been found more than usually prominent in morbus Addisonii." "Occasionally tubercle has been met with in the lungs, and this has confirmed the opinion in the minds of some that the disease is scrofulous; but it must be stated that the deposit in the lungs has generally been of the same nature as that in the capsules, the true nature of which has been the subject of discussion."

In a few cases caries of the spine has been found associated with the disease adjacent to the capsules. "In these cases" says Wilks, "the disease of the spine must be regarded as the older."

It will thus be seen that Wilks regards the conditions as a disease separate and apart from all the others.

A gentleman residing at Centralia, Mo., recently called upon me requesting my opinion concerning the nature of an affection which had manifested itself several months previously. There was persistent languor, weakness and disability to perform manual labor. The pulse was small and compressible, the whites of the eyes glistening and pearly, and the appetite much impaired. The skin was bronzed, not as some writers say like the mulatto, but more like the Indian. This condition had developed rapidly. There was marked tenderness over the region of the suprarenal bodies. There was occasional vomiting, without much nausea. The asthenia was marked, though he presented no excessive evidences of anæmia or wasting. To use his own words: "People say I look strong enough to work, and I suppose I do, but I feel utterly prostrated all the time." Palpation and pressure over region of liver, spleen and stomach revealed no indication of any disease of those organs. The tongue was clean and healthy. Examination of the urine revealed nothing abnormal in quality or quantity. I diagnosed Addison's disease; placed him on Greenhow's prescription of chloroform, glycerine and iron, and sent him

home without encouragement. I have not since heard from him.

During the month of January last I was approached by a gentleman who desired to be examined for insurance in one of our assessment societies. This man was a tinner, between 40 and 45 years of age, and had been constantly engaged in the labors of his trade for several years past. A few questions elicited the fact that two of his family had probably died from consumption, although he was not positive. I told him it would be necessary for him to inform himself more thoroughly about his family history before I would consent to examine him. He left, promising to do so, but did not present himself for examination again.

In a few weeks I heard he was dangerously ill from some supposed malignant disease of the stomach. I learned, too, that the physician in attendance had him under observation some time during September last, and had expressed the opinion at that time that there was probably some cancerous trouble in the stomach. The applicant had continued to labor at his trade up to the time within three weeks of his death. There was no history of hemorrhage or much vomiting, but a constant pain, not of a very acute nature, in the gastric region. The disease was not sufficient to confine him to bed until about the first of March.

The condition progressed from bad to worse until Friday, the 19th of March, when the applicant died. I learned then, that subsequent to coming to my office, he had applied to the examining physician of another order for insurance, had been examined and accepted as a good risk. During his examination he had stated that he had learned that his relatives did not die of consumption, and that there was no derangement of his digestive organs. He was admitted to the order during the month of February upon paying the initiatory fee and an advance assessment.

A few days after admission he sent for the physician, who had diagnosed malignant disease of the stomach, stating he was worse, and placing himself under treatment. He grew steadily worse until his death, which occurred about five weeks after admission to the order.

He was insured for \$3,000, and his early death naturally caused considerable feeling amongst the members of the organization. The attendant physician during his last sickness diagnosed "malignant disease of the stomach and liver, and possibly kidneys." It was regarded by the members of the

order as remarkably singular that the examining physician could overlook such a grave condition of disease. The latter stated it was impossible for the patient to have had any such disease at the time of examination, and if he had, the questions propounded had not been answered truthfully. The applicant was buried on the 21st.

Gossip and comment still continuing, the examining physician determined to have the body exhumed and an autopsy held. This was done on March 25th. The attending physician and the examiner for the order were present. Drs. Irwin, Hickerson and myself were requested to make the autopsy. Drs. Irwin and Hickerson made the section. I took notes of the conditions found.

The cadaver was in excellent state of preservation. Corpse sallow, wasted, anæmic, cachetic, dark hue. Cheeks hollow. Post-mortem changes, external, were venous stasis, well marked over abdomen, especially in right and left iliac regions. Venous stasis also plain on dorsal surface of hands; but little fatty tissue discovered on abdominal section. Peritoneum pale, bloodless and healthy.

The costal cartilages were cut through the sternum, elevated and bent back, exposing pleura, lungs and pericardial sac. A few ounces of dark, bloody serum was seen in posterior portion of thoracic cavity. Pleura healthy; no adhesions, bands or inflammatory thickening. Lungs in situ, a pale, mottled gray, perfectly healthy, with slight post-mortem congestion from settling of blood in posterior portion of lung. No tubercles or cavities; perfect vesicular crepitation on pressure.

Pericardium pale pink and healthy; but little fluid in pericardial sac. Ventricles of heart collapsed, and but little blood in auricles. Walls of heart thin, but atrophied only from general wasting of system. Heart cavities healthy. Great omentum pale and healthy, with very little fatty tissue. Spleen dark, slightly congested with venous blood; very slightly enlarged and somewhat friable. Liver normal in size, pale and healthy, with slight post-mortem venous congestion along the free border. Gall-bladder full of healthy bile, and in a normal condition. Lesser omentum and intestines natural.

The stomach was found slightly congested and inflamed almost throughout entire extent. The walls were remarkably thin and wasted, the gastric tubules seemingly almost entirely destroyed. A suppurating chronic ulcer was found

on the posterior surface of the cardiac extremity of the viscus, extending entirely through the posterior wall of the organ, about an inch and a half immediately below the point of entrance of the œsophagus. The œsophagus was inflamed from point of entrance about seven inches above. Pus covered the mucous membrane of the stomach throughout, giving the tissue a greenish yellow hue. About two tablespoonfuls flowed from the ulcer when the organ was removed.

The right and left suprarenal capsules were found in the condition characterized by Wilks as the third stage of the disease, and which I here append, as more graphic than any words of mine could be :

“At a still later period the whole of the originally formed material may be changed into a yellow substance, and now it is that it presents the ordinary appearance of a mass of yellow tubercle. During this time the whole organ shrinks and becomes reduced to about its original dimensions.

“In many cases a still further change ensues, and the solid material becomes converted into a creamy or pus-like fluid, so that when the capsule is cut through, this may escape, just as in opening an abscess.”

Both capsules were in this last stage of the disease, the right more markedly so than the left. As my notes say : “The capsules were found in a condition of postular degeneration, yellow and semi-liquid in appearance, and entirely degenerated.”

Examination of right and left kidneys showed them to be healthy. There was no examination of the bladder, as no disease of that organ was suspected.

The condition found will probably result in an effort on the part of the order to prevent the payment of the insurance. The examining physician refuses to recommend the payment of the insurance, and considerable feeling exists amongst members of the organization concerning it.

A careful research of the literature of the subject fails to reveal any recorded cases of gastric ulcer associated with Addison's disease, or vice versa. Aitkin, Bristowe, Wilks, Pepper and Watson are all silent concerning such a combination of diseases. In Hartshorne, Dr. Austin Flint is quoted as saying that degenerative disease of the gastric and intestinal tubules is the cause of anæmia, so prominent in this affection. It is unquestionable that gastric disease and ulcer had existed for some months in this case, and it is

probable that the ulcer was the immediate cause of death. But no inflammation had been produced in the omentum or surrounding organs by the perforation of the ulcer.

Hartshorne says that the disease is fatal always at last. Average duration about fifteen months. Wilks, that some cases of the disease are as brief as six months, and an average of about one and a half years will cover the duration of the disease. The mode of death is asthenic; the patient becoming weaker and weaker, diarrhoea sometimes ensuing, sometimes convulsions or coma; sometimes the patient remains in the lowest state of vitality for weeks, and then suddenly dies. Life lingers like a flickering flame, and then suddenly expires.

The larger number of cases of Addison's disease occur in men. The larger number of gastric ulcers in women. Remedies recommended for the former condition are few, and not considered to possess much virtue. The favorite prescription of Dr. Greenhow was chloroform, glycerine and iron.

Some facts of an interesting nature may be gleaned from this autopsy: First, the association of Addison's disease with gastric ulcer. Second, the possibility of the cachetic hue when associated with derangement of the stomach being taken for cancer. Third, the fact that the asthenia and prostration are not always sufficient to prevent the regular discharge from manual labor. Fourth, the possibility of intercurrent disease obscuring the symptoms connected with Addison's disease. Fifth, the possibility of overlooking a very grave lesion or combination of diseases when insuring an applicant, and lastly the tendency of individuals to conceal grave and mortal conditions, where pecuniary considerations are involved, when preparing to "shuffle off this mortal coil."

PLUGGING THE POSTERIOR NARES.—Dr. James Brydon suggests the following method: Take a piece of twine of sufficient length, and fasten to the end of it a pledget of lint or rag, the size of a large pea, or a small globular button with a neck does very well. Then form a ring about a quarter of an inch in diameter, on the small end of a silver probe or piece of wire, and bend it down. Run the twine through the ring till the pledget or button is close against it. Then pass the wire or probe along the floor of the nose; tell the patient to hawk and spit out, and at once the pledget with the twine attached is ejected.—*British Med. Jour.*

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS, from the French, by Dr. Illowy,
Cincinnati, Ohio.

MODERN METHODS OF TREATMENT OF PHTHISIS PULMONALIS.

Since the last few years phthisis pulmonalis has been the object of study to medical men, and numerous questions of importance have in consequence been elucidated, among others the question of its contagiousness and its parasitic nature. In consequence of these new views concerning this disease, new methods of therapeutics, in accordance with these theories, have come in vogue. Of these methods of therapeutics, three are deserving of especial attention :

- I. Superalimentation.
- II. Antiseptic inhalations.
- III. Intrapulmonary injections.

I. Superalimentation. One of the most redoubtable symptoms occurring in the course of this disease is anorexia. The phthisical have frequently a great repugnance to any kind of food ; it becomes therefore a matter of the first moment to combat this anorexia, this repugnance, so that the vital forces may be sustained in their great struggle with the disease. We usually begin by administering bitter tonics, and when we have exhausted this category of remedies, we find the anorexia as obstinate as before. This anorexia may present itself under three different forms :

a. The patient has no appetite, but digests well what he takes.

b. The patient has no appetite, but forces himself to take food which after several minutes or hours he will vomit again.

c. The anorexia is moderate, but the digestive powers are very much enfeebled ; the patient eats without appetite, and shortly afterward experiences a sensation of pressure in the stomach, epigastric pain, acid eructations, flatulence symptoms, which cause him great uneasiness and very soon bring about a repugnance to all kinds of food.

The same method of treatment is applicable to all these three forms, *i. e.*, to wash out the stomach until the appetite reappears ; till it will tolerate the food ; till its digestive powers have returned.

In certain cases, however, despite repeated lavings of the stomach it will not tolerate food; it seems that the very act of deglutition calls forth nausea and vomiting, for if the food be introduced through a stomach-tube, it is well tolerated and readily digested.

The practice of superalimentation consists in introducing into the stomach, by means of the stomach-tube, a quantity of aliment much greater than the patient could ingest. These aliments are represented by milk; milk and egg; milk, egg and peptones. This process of feeding may be repeated three to four times daily.

Strange to say, one or two hours after thus stuffing him, the patient will experience a feeling of appetite more marked than before the feeding. After several days of such superalimentation the general condition is much improved, the weight of the patient has increased, but the status of the lungs has for the most part remained stationary.

II. Antiseptic Inhalations. These are made by means of an inhaler, a small, simple instrument, formed like a small pyramidal horn; perforated with a number of small holes, and fashioned so as to cover mouth and nose. At the summit of the pyramid a sponge is fixed, which is soaked with the fluid to be inhaled. Generally a solution of equal parts of alcohol and creosote is used, to which a little chloroform may be added, if desired, to calm the cough. By this method the quantity and quality of the expectoration is greatly modified. At the outset the inhalations should not continue for too long a time, not more than ten or fifteen minutes every two or three hours. Later on they may be allowed for half an hour, or even an hour. Great benefit is derived from their gradual augmentation. Not more than twenty drops of the above mentioned solution should be dropped on the sponge at one time, otherwise it may produce irritation. If these inhalations are judiciously made, they afford the patient great relief, and at the outset of the malady may succeed in arresting its progress. It is probable that the creosote acts by its antiseptic properties in destroying the bacilli, and by its general effects in combating the catarrhal status; when cavities exist it suppresses their putridity. In many cases it relieves the cough better than all the sedatives, without having the disadvantage of destroying the appetite, which so frequently occurs when this class of agents is employed.

III. Intrapulmonary Injections. These injections are

made into the cavities; their purpose is to disinfect the expectorations, to modify the parieties of the cavities so as to favor cicatrization and retraction. They are made in the following manner:

The canula of a Praraz syringe is introduced in the first, second or third intercostal space, in front of, or in, the axilla. There is no danger at all in making this injection above or on the outside of a vertical line passing through the nipple; but if made inside of this line there is a risk of penetrating the pericardium, or some of the great vessels. The canula should be introduced to a depth of six to seven centimetres. The slight pain caused by the puncture can be obviated by the use of some local anæsthetic.

The liquid generally employed for these injections is a mixture of one part tincture iodine to four parts distilled water.

Five to twenty drops are thrown in with each injection, and the injection should be repeated every four or five days. Before introducing the needle, the patient is told to take a deep breath so as to fully distend the lung; in this period the injection is made, and then he is allowed to expire the inhaled air. The injection may be followed by a slight cough and by some sanguinolent expectoration, and for some days the point of injection will remain painful. Robinson, of New York, who has made a great number of these injections with the best results, believes that they are still more indicated in cases of induration of the summit than in those of softening of tubercles. In the first named disease there is almost always a state of latent inflammation present, which may be considerably modified, perhaps, by rendering the inflammatory exudations more liquid, and consequently more easily reabsorbed.

With either of these three methods, the measures of the most perfect hygiene must be instituted; that is to say, to see to it that the air inspired is dry and pure, that the temperature is steady, to administer cod-liver oil in such quantities as the digestive system will tolerate and assimilate, to remove all mental or physical fatigue, to place the patient in a large apartment, to supervise his alimentation; in one word, all the measures that aid in combating the feebleness and exhaustion that tend to set in in this disease.—(*Journal de Medicine de Paris.*)

Selections.

Practical Electro-Therapeutics.

BY WILLIAM F. HUTCHINSON, M.D., PROVIDENCE, R. I.

IN considering so important a subject as nervous exhaustion, I deem it best to adhere to the division of the subject made by me a few years ago in the *New York Medical Record*, in an article entitled, "Types of Neurasthenia," wherein cases were described as belonging to cerebral, gastric, and sexual exhaustion, arising from different causes, presenting different symptomatology, and requiring different treatment. Dr. Corning, in his late work upon brain exhaustion, has expressed what is undoubtedly the general opinion of the profession at present, that exhaustive conditions of the brain are curable. But to treat all cases of nerve tire by brain rest is manifestly illogical, for in gastric and sexual types cure is practicable without interfering with brain work. Neurasthenia from cerebral exhaustion is chiefly marked by occasional vertigo, coming on after a sense of darkness, followed by a headache, and accompanied by an acid, metallic taste, something like that of galvanism. Words are dropped or are difficult of utterance, and an indescribable anxiety destroys comfort or pleasure in life. Business cares assume heavy weight, and friends are doubted. In fine, for the time being, life is a burden, and occasionally prospects of casting it down are seriously entertained. Morbid fears, in my own cases chiefly fears of places, become living obstacles to action, and the patient is a nuisance to himself and his friends. Here nothing can be done in the way of treatment until change of occupation, and if possible, change of environment, is effected, the former being always feasible in the case of a brain worker, the latter frequently out of the question. When once a writer has laid down his pen, a student his book, or a teacher has dismissed his scholars, I have rarely found need of any drug to effect a cure. Galvanism has always proved sufficient, and is applied as follows: When the patient comes in, place him in a quiet room until all agitation of nerves is past. Then, with the feet in a basin of warm salt water, in which is also the negative pole of a low-tension galvanic series, place a

large, soft, wet sponge upon the top of the head, having thoroughly moistened the hair, and slowly switch into circuit six or seven cells, one by one. The current should be just strong enough to be felt as warmth on the head or distinctly tasted. Continue this downward application for fifteen minutes and stop. The patient will usually be very sleepy, and should have a quiet nap of an hour immediately. I do not even permit them to dress before lying down, and this sleep is profound and refreshing in the extreme. It is rare that I have been forced to continue treatment longer than a month, even less time frequently proving efficacious.

CASE.—Mr. J. B. K., aged thirty-six; native of Rhode Island; book-keeper and manager; family history, one-half consumptive. During our late war Mr. K. received a blow upon the top of the head from the handle of a pitchfork, which knocked him senseless for an hour. Some months after the injury, was prostrated by the sun, and carried to the regimental hospital for a day. Nothing followed these incidents, however, and he returned home after the war to assume a bank position. Five years ago began to experience general uneasiness whenever in a room full of people, and was obliged gradually to give up society. Attacks of vertigo became more frequent, and it finally became necessary to avoid crowds entirely. Next came topophobia, to the extent of quite preventing his crossing Exchange Place, one of our open squares. This was accompanied by explosive nervous discharges, sounding as if a pistol had been fired inside the skull, and constant dreams of a voluptuous tendency. Temperature, 101.5 mouth; pulse, 76, thin and jerky. General functions normal, and patient presents the appearance of robust health, weighing 165 pounds, ruddy and strong. Treatment was commenced September 1, 1880, as above described, and was continued for four weeks, with the happiest effect. No trace of difficulty remained, and he returned to business. In six months afterward Mr. K. reported again at the office with the same train of symptoms, which a similar course again relieved, and he has usually found it necessary to repeat the treatment at least once a year, never more than twice, to keep him right. I believe that if it were possible for him to have a year's complete rest, there would be no further trouble. At the present writing, 1887, Mr. K. reports he has no return of the difficulty for two years.

Gastric neurasthenia is much more common than cerebral,

as dyspeptics and over-feeders are more common than brain-workers. When the digestive tract is so far enfeebled by abuse or disease as to be quite unable to respond to the stimulus of food ingestion with flow of solvent acid juices, and only worries through its task with infinite labor, nerve exhaustion ensues, in common with loss of general tone. These cases are very frequent. Besides the usual symptoms of dyspepsia, head-pain, foul tongue, etc., there is present a group of nerve changes, functional in character, which are distressing in the extreme. The heart's action is interrupted and feeble, with simulating murmurs, extremities are cold, face pinched and anxious, with frequent vertigo. Words are dropped out of sentences spoken or written, memory becomes treacherous, and the most even temper grows impatient and irritable. With increasing emaciation functional paralytic symptoms come on. There may be patches of local numbness, formication, or dragging of one leg. I have now one patient who has spasmodic movements of both little fingers about ten minutes after eating. In some of these cases, which have resisted for a long time every form of medication, every diet formulary, electricity comes promptly to the front, and acts well. Galvanism and faradism should be combined. Central galvanism, employing the full treatment, should be applied for twenty minutes in the forenoon, using ten to twelve cells of a low-tension battery, equivalent to one and a half milliamperes, and general faradization as late in the evening as may be convenient, with a very fine current, just strong enough to be distinctly felt. Always have the patient recumbent and undressed, with the flat sponge-pad under the sacrum. From that as a negative pole, use a large, soft sponge positive, kept moistened with hot water, and go over the entire trunk and limbs, with long, slow sweeps. Guard against having the sponge too wet, or there will be danger of cold. In ten minutes nervous excitement will calm down, and in twenty more the patient will generally be asleep. Of course, electricity in such cases does not in any way interfere with a rigid dietary regimen, which must always be enforced.

CASE.—Mr. J. M. H., contractor, aged thirty-two; native of Massachusetts; father died of cancer of mesenteric glands at an early age, and one brother of consumption. For seventeen years has been a sufferer from severe constipation, arising from irregularity in meals. About three months

ago lost appetite completely, and forced down only sufficient food to support him; each meal followed by sharp pain in stomach and bowels. Can at present take only liquid food, and is exceedingly nervous and wakeful. Has severe attacks of nervous headache, lasting sometimes twelve hours, followed by sense of weakness of back muscles. Pulse, 100, full and tense. Temperature, mouth, 100°. Urine normal. Retinal arteries enlarged and tense, with slight optic neuritis. Lungs and heart normal.

Mr. H. was placed under electrical treatment as above described, and grew better quite rapidly; but the demands of a large business were so imperative that resistance was impossible, and he soon relapsed. Again careful diet and electricity relieved the symptoms, but nothing could detain him from his affairs, and he finally died of inanition.

Sexual neurasthenia is frequently and with good reason described under the head of spinal exhaustion. But as I believe that the cord disturbance is here secondary to sexual abuse, I prefer the former nosology. It is not confined to men, although a majority of my patients are males. It is invariably slow of cure, and in advanced cases frequently resists all efforts in that direction. It is characterized in the male by more or less complete loss of erectile power of the penis, flabby scrotum and pendulous testicles, by general nervous uneasiness in the presence of women, and by frequent nocturnal pollutions without pleasure and without dreams. It differs from impotence in degree rather than in kind, for patients of this class frequently procreate, while impotents as often are free from other weakness. It occurs in men in the prime of life, and is nearly always due to sexual excess.

In women the excessive venery is usually compulsory, since a majority of married women of the better class endure coition, not enjoy it, and submit to some brute of a husband after unavailing efforts to escape, when they would infinitely rather go quietly to sleep. Here the functional nervous derangement is shown by abdominal neuralgic pains, by failing sight in early adult life, and by localized patches of soreness upon the scalp. Hysterical phenomena are concomitant, as are also ulcerations of the external os and subacute vaginitis. Such a woman looks upon her marital bed as a veritable rack, and her husband as a corregidor of the Spanish Inquisition, and begs her doctor in piteous tones to persuade her husband to let her alone. Such a plea has occa-

sionally succeeded when supplemented by a glance through a speculum at the ulcers and foul discharge from the wife's diseased cervix and os uteri.

In either sex prompt and continued sexual abstinence must precede any treatment. But I have not found it either advisable or possible to enforce this with all men. Some cases will take refuge in a return to childhood's secret habits, or nocturnal emissions will rapidly increase in frequency, and great moderation rather than abstinence has been best in my hands. With women, however, the latter course is the only one, and there must be no delay in enforcing it as far as practicable. When this is successfully arranged electricity plays a most important part in the cure, being in itself quite sufficient to accomplish it in most cases.

With men I employ galvanism alone; I regard faradism as injurious in debility of the genital nerves on account of its highly stimulating properties. Application should be made twice daily, if possible, as follows: Place the patient upon a stool, stripped so as to give easy access to the whole length of the spinal column, and under the base thereof a flat sponge electrode, connected with the negative pole of a low tension battery. Commencing at the nape of the neck make slow, steady strokes down the spine, using enough power—so many cells—as will give a decided sense of heat. When the skin is bright red, which will generally take fifteen minutes, the sitting is done.

Great patience and a protracted course is necessary in nearly every case, and I usually recommend a three months' course at the outset, which is not infrequently protracted a year.

In women the procedure is radically different. Withdrawal of the exciting cause and local treatment of local lesions leave the system in the best possible form for tonic applications of general faradization, which should be made in the manner directed in Article II. of this series.

Recovery is usually prompt and complete—leaving the nervous system, however, in a condition of accumulated irritability, which breaks out anew upon small provocation.

CASE.—Mr. W. R. B., aged thirty, single, commercial clerk, five feet eight inches in height, weight 120 pounds. Commenced to masturbate at ten years of age, and continued five years, when nocturnal emissions began and have since continued, averaging three or four times a week, not awaking. Has never had intercourse with a woman. Has

a sore spot on top of head, which becomes much worse upon attempting to read or apply himself to business. Considerable pain in back and spine. Is nauseated several times a day. Has frequent attacks of numbness of right hand, and drops words while speaking, although conscious of the defect and trying to prevent it. Urine passes irregularly and in spasmodic jets.

After cauterizing the urethra with an electrolytic bougie, spinal galvanism was begun and continued for five months, when the emissions were reduced to one a week, and patient became strong enough to attempt coition. Although a cure was not attained, the result is so far good that Mr. B. is about and attending to his business.

Perhaps a majority, certainly a large proportion, of cases consulting a neurologist in a given length of time are the outcome of generative insufficiency. No disease, if indeed the hydra-headed group of disorders of mind, muscle and nerve arising from this cause may be so termed, is so widespread, so generally understood to exist, or so rarely leads to a fatal termination, as this, and, we may add, is so unsuccessfully treated. In the nature of things, this condition has probably always existed, and will always remain. When the sexual instinct first makes its appearance in the pubescent boy or girl, there accompanies the development of its strong desires a demand for its gratification so peremptory that it is rarely unheeded, and attains its satisfaction either in waking or in sleeping dreams. The number of men who attain adult life without masturbation is surprisingly small, and is, I am persuaded, confined to those who have had early and constant intercourse with women, or who are arrayed in the ranks of nocturnal emissionists.

If a general inquiry were to be instituted among men of, say, twenty-four years of age as to how many *never* have masturbated, the result would astonish not the experienced medical man, who knows the facts, but nearly every one else, and might, perhaps, be doubted. None the less true, however.

The sexual appetite is one which will not be denied gratification when it comes upon a young man, and is scarcely less imperious than its fellow instinct of life preservation. The habit of self-abuse is contracted, in the male, from companions almost exclusively, and usually persists until the boy grows large enough to go into female society, where he speedily becomes inducted into the knowledge of genuine

sexual pleasure, and abandons the old habit with disgust. So that impotence from masturbation is by no means as common as is generally supposed, but is usually limited to the class before alluded to as exceptional—those constantly with women or haunted by emissions.

Not only in the male; for I am constantly consulted by women who are as useless in sexual matters as an eunuch. They can never receive nor give sexual delights—know nothing of the strong desire for male companionship, which is a normal instinct, and, if conscientious persons, who have unwittingly entered the married state, are in life-long discomfort, not to say misery. “Doctor,” asked one, “what shall I do? My husband tells me that I am good for nothing, that he never saw such an iceberg, and that I must consult you in the matter. For, if there is any cure, I must have it, or he may not remain true.” Alas, poor lady! there is none. You were born so, in common with many others of your sex, and to attempt to develop an instinct that only exists in a rudimentary condition is well nigh a hopeless task.

So general is this condition of sexual apathy amongst women of all nations, that to find one whose desires are as strong as those of the average man is the exception to a well-known rule; and, were this as generally understood by the laity as by the profession, it is possible that much domestic infelicity might be avoided. Not to expect too much is to avoid disappointment.

While masturbation is much less common with girls than with boys, it still exists to a degree that would astonish any one ignorant upon the subject.

We are not so badly off as in France, if an eminent author is to be believed. Dr. Deslandes states “that a large number of little girls, and a majority of adolescents, are addicted to this habit.” But there is enough of it with us, and it is the parent of many of the hysteriform nerve derangements of our young women. So marked is the peculiar expression of one of this class, that one almost never makes a mistake in asking, during an examination, the plain question, “How many times a week do you practice self-abuse?” The reply, made with downcast eyes and blushing cheeks, “Why, doctor, how could you know that?” and a little judicious coaxing soon makes the matter clear, and there is no trouble with the diagnosis.

In the treatment of these cases more men have grown

rich than in California gold mines—for the pride of a man is his virility, and he will part with anything short of life rather than lose it. So that, in all ages, charlatans have reaped a rich harvest from this field, and the nineteenth century still gives them a plentiful aftermath, for it is one wherein regular medicine has made such brilliant failures that physicians are chary of promises.

Damiana, phosphorus, strychnia, musk, nutmeg, and the various preparations of iron have all been faithfully tried as aphrodisiacs, and with the exception of the first named, have been of greater or less benefit in selected cases. Damiana has, in my hands, proven as useless as cundurango in cancer, and it is, I think, very generally discarded. The others are most valuable as general tonics, with perhaps a special remedial action in generative insufficiency, but I have never seen, outside of the Grand Bazaar at Constantinople, any drug which was a direct and undoubted aphrodisiac. There was a crimson elixir sold there a few years since which was certainly that—and which acted without any subsequent loss of power, so far as a limited experience of it warrants me in speaking, but its composition was entirely a secret.

Electricity has been employed for a long time in these cases, until quite lately by charlatans alone, and even in their hands has yielded good results. It is to call attention to a few points, which are perhaps novel in the application of the currents to the generative organs, that this article is written, although the long preamble might easily have led to another opinion. Early in my special study of electro-therapeutics, in 1874, the idea occurred to me that faradism could be applied to the male generative organs in a better way than by manipulation with rheophores or the electric brush. I therefore devised a special electrode, in the shape of a cylinder of metal, within which plays a piston, the rod of which is surrounded by a weak spiral spring, bearing upon the inside of the closed end of the cylinder. Resting upon the piston is a pad of surgeon's sponge. The tubes are made of different diameters, varying from $\frac{3}{4}$ to 2 inches, and from $3\frac{1}{2}$ to 5 inches in length, and, during the application, surround the penis, the sponge-pad, moistened with salt water, pressing against the glands. The current should be exceedingly fine faradism, *i. e.*, of rapid interruption, of high tension, and fair quantity. In other words, it should be as strong as the patient can bear without

pain, and without shocks. Applied in this way, with a large negative sponge electrode at the back, under the lumbar vertebræ, the patient comfortably recumbent, the result is a strong stimulation of those branches of the sacral plexus composing the genito-urinary tract, and a corresponding increase in muscle nutrition. The penis becomes turgid, the dartos contracted, and a close watch must be kept upon the patient, lest, by continuing the application too long, an emission be produced. By discontinuing the current after five minutes, or by increasing the electro-motive force until it becomes painful, this result may be avoided. By a steady persistence for several months in this form of treatment, I have succeeded in rescuing several patients from that worse than death to a sensitive man—a life of lost manhood. The applications should be made daily.

In cases of nocturnal emissions, a directly contrary course must be pursued, since the conditions are opposite, at least in a certain sense. There is as yet no loss of virile power; there is an intense hyperæsthesia of the genito-urinary tract, which requires no stimulus, which is directly injured by it. No tonics, beyond the general ones of outdoor exercise and plentiful food, can be depended upon, for they tend to aggravate the irritation of the excited nerve centers. For this reason faradism is inadmissible. I think that far more injury than good has followed its use, and abandoned it wholly in my own practice in these cases several years since. In its place I use galvanism derived from a battery of low tension—some modification of Daniell's element. It is applied by a Newman's urethral electrode, with olive tip large enough to gently distend the urethra. This is passed into the bladder, and the circuit completed through a hand electrode, when it is slowly withdrawn, the whole operation lasting about one minute. If the slightest pain is experienced the current is too strong, and should be modified, until only a sensation of warmth is perceived. This operation should be repeated daily for several weeks, and has been, in my practice, productive of the happiest results. One case, now under treatment in the eighth week, reports emissions reduced from three or four weekly to one in eight or ten days.

What can electricity do for apathetic women? I regret to reply, very little. Years of work in this direction have convinced me that no agent can overcome a natural lack of sexual passion. Faradism, general and ovarian; galvanism, spinal and central; franklinism in every form of application,

have each been faithfully tried, and in turn have failed to effect any permanent good. If the general health be good, I now recommend consulting women to abstain from all treatment for such condition, and rest content with their natural status.

There are, however, occasional cases wherein there is a slowness of action of temperament; where the passions are sluggish and torpid, which electricity is competent to remedy. Here spinal and ovarian faradization has proven most useful.

I can not close this article without calling attention in the strongest possible manner to a point wherein I think the profession is strangely, culpably derelict. We do not insist sufficiently upon the necessity of home training. If every father and mother would talk plainly to their boys or girls, would explain to them the danger of secret practices, and how difficult to get rid of the habit once formed; if family physicians would insist upon such confidences between parent and children, much misery and shame might be averted. In every case that comes under my care I ask: "Did your parents never tell you of the danger of self-abuse, and warn you against contracting the habit?" And invariably the reply is, "No, indeed." The influence of the house doctor in cultivated families—in all families, is greater than any one but himself can estimate, and his clients have the right, if it be an unsuspected one, that he shall use all his talents in their behalf.—*The Medical Register*.

Some Notes on Management of Ear Troubles.

TO THE EDITOR OF THE *Medical Register*:

THE rural practitioner is frequently made the butt of many jokes, as being a sort of "Jack-at-all-trades," and the custom is too prevalent already of regarding everything but every-day common treadmill work as too complicated for the ordinary doctor. I would not for a moment deny the superiority of the specialist in his particular line—in diagnosing and treating cases—but very many people are living out of the reach of skilled specialists. And as such cases fall to the lot of ordinary doctors to manage, they ought to bring to bear on them all the means at their command, instead of saying they should consult a specialist, when we

know they have not the means nor opportunity to do so. For some years after I began practice I passed by ear cases as being beyond my reach, as I had no special instruments nor special knowledge to use them. After a time I made up my mind to make a beginning, and so brushed up my anatomy and read up on pathology, and soon I had a case of aural catarrh and growing deafness. Succeeding very well, I kept on ; found I was doing many of my patients good, and it afforded a variety in my work and gave me renewed interest in the subject. In the same manner I dealt with eye and throat troubles and in gynecology. Who does not do some of that ? Soon I found I was the only physician in the county who was using a Schr etles head-mirror, Politzer's bag, ear-currents, etc. Ear troubles in this climate are very commonly a result of pharyngeal catarrh, extending through the Eustachian tube to the middle ear. Resulting deafness, I found, if it had not been too long, could be removed by inflations, using Politzer's air-bag and Roosa's attachment. In diseases and injuries of the eye we ought to be qualified to treat them scientifically and successfully, for many of the eye troubles are acute, and if not dealt with promptly and correctly disaster will follow.

It has given me great satisfaction to be able to handle cases of such description, for I have seen such bungling work done by some that it would have been better to let nature struggle on alone. The outlay in instruments and apparatus is not great. If one is not well up in the anatomy, pathology, and treatment, it may take some effort to get to the front. I do not write these lines for the edification of specialists, nor to disparage sending extreme cases to them where it can be done, but to urge the general country practitioner to widen his horizon of work, and to prepare ourselves, that we may do what we undertake well, and and thus bring profit to ourselves, as well as thanks and and feelings of gratification from our patrons. I will relate a case, the first one of the kind I ever saw in practice, as a specimen of work liable to fall to us :

Mr. F., aged forty, had, late in the past winter, an acute otitis media ; the tympanum had ruptured, and there was a continual purulent discharge for some weeks, with growing deafness in the ear. At this time he presented himself for examination. I found hearing entirely abolished. The auditory canal was filled completely with a soft, gelatinous polypus. I had nothing I could remove it with. I ordered

him to call again in a week; in the meantime I ordered me a Jarvis snare, and when my patient came by appointment, I removed it at the first trial. There was free bleeding for a few moments. I cauterized the base from whence the growth sprang, and treated the ear a few times with insufflations of boric acid, and my patient was all right, and as yet no return of the disease. I saved that man an expense of \$100 at least, and the operation was just as successful as performed by Burnett; at least, so far it is the case. The ceaseless routine of dealing out pills and powders is pleasantly relieved by these little variations in our work, and it helps make life more worth living. The doctor who has a large business does a great variety of work in the country; now it is a tooth to extract, or a baby to deliver with forceps or version; then a catheter to introduce, a wound to sew up and dress aseptically, a piece of steel to remove from the cornea, a surgical operation of some kind—it can not be expected he should do all as well as a specialist, but I believe the broader his knowledge, and the more thorough and varied his work, the greater will be his success.

A. D. BUNDY, M. D.

ST. ANSGAR, IOWA, May 13, 1887.

The Treatment of Malarial Diseases by Picrate of Ammonia.

DR. MARTYN CLARK, in charge of an Indian medical mission, has communicated the following to the *Lancet*:

“Picrate of ammonia possesses valuable therapeutical properties, though it does not seem to have received the attention which it deserves. The characters, properties and uses of this substance were carefully investigated by Dr. Dujardin-Beaumetz, and the results were communicated by him to the Therapeutical Society of Paris in 1872. The salt had previously been successfully used in the treatment of intermittent fever by Drs. Braconnot, Calvert, Aspland, Bell and others. Dr. Beaumetz’s investigations confirmed the results at which these observers had arrived, and showed that in this substance we have a valuable and efficient substitute for quinine in the treatment of malarial diseases. It appears to have passed out of mind, and, as far as I can gather, has never been used in India. My attention was directed to it accidentally in the following way: I had a pa-

tient under my care at a hill sanitarium who had suffered for seven months from severe intermittent fever of the quotidian type. Quinine, arsenic, and other antiperiodics had been, and were freely used, but failed to give relief. After ten days' treatment the fever still recurred daily with its accustomed severity. At this juncture the local chemist told me of a remedy for fever which he had received some years previously, but had never tried. This I found to be picrate of ammonia. I gave it to my patient, with very gratifying results. The fever did not recur next day, nor did it so at any time during the three subsequent months in which she remained under my observation. I have since then constantly used the picrate of ammonia in the treatment of malarial diseases. There has been ample opportunity to test it fully, for Amritsar is notorious in the Punjab for its unhealthiness, and diseases of this kind are severe and frequent. During a period of four years and a half I have treated over four thousand cases of these diseases with this agent, with the happiest results. So uniformly successful has it been that I have in our very extensive practice here given up the use of quinine and the cinchona alkaloids for the treatment of intermittent fever, and have substituted picrate of ammonia for them. A record was kept of five thousand cases of intermittent fever treated with this agent. Of this number, in nine cases only did it fail to cure, and in these quinine succeeded at once. I usually give it in doses of from one-eighth of a grain to a grain and a half, four or five times a day in pill. Half a grain is a fair average dose. Thus given, the result is soon visible. In the great majority of the cases treated, half grain doses in the interval prevented the recurrence of the next attack of the fever, while in about twenty per cent. of the patients two or three attacks followed before the fever ceased. In one case of quartan ague, despite large doses of the salt, the fever recurred for six periods, gradually diminishing in intensity, and then yielded to it. It is equally successful in all the forms of ague, but it is curious fact that the cases in which it failed to cure, were all of the tertian variety. I have also employed this agent in the treatment of twenty-five cases of malarial neuralgia of various nerves, six cases of malarial headache and one of malarial colic. In all these instances it cured completely and speedily. In remittent fever it does not appear to be of use; six cases of a severe type were treated with it without any effect. Neither is the enlarged spleen

of ague benefited by it. I have given it in numbers of such cases in conjunction with ergotine with good results, but such results are secured equally by the use of the ergotine alone. My experience leads me to the conclusion that in all varieties of intermittent fever, and in malarial neuralgias, picrate of ammonia is a valuable antiperiodic, and it is an efficient and perfect substitute for quinia. It has the following advantages over quinine: 1. It is much less expensive. This is an important consideration where, as in Indian practice, hundreds of cases of malarial diseases have to be treated annually. 2. The dose given is very much smaller. 3. It does not produce the unpleasant effects that quinine does—headache, deafness, tinnitus, etc.; nor does it disorder the digestion or cause nausea, as quinine is apt to do, in the doses in which it has to be given in India.”

Christian Healing from a Christian Standpoint.

WE have so often been obliged to criticise the clergy, and especially such as control religious journals, for aiding and abetting medical quackery, that we turn with pleasure to a recent sermon, by the Rev. E. C. Ray, of the First Presbyterian Church, at Hyde Park, Ill., a report of which lies before us. The discourse is on the subject of mind-cures, faith-cures, etc., and its tenor may best be judged by a few extracts. The preacher says:

“*Apparent cures* are often followed by a relapse, temporary improvement by permanent decline. From reported cases of cure we must deduct many of unreported relapse; it is not in human nature, when a wonderful cure has been published abroad, to follow it up with an account of the relapse coming afterward.

“*Mistaken diagnosis* accounts for many supposed cures. Physicians often, patients more often, mistake the nature of a disease. Temporary swellings are called malignant tumors or cancers (thus cancer doctors get their reputations); hysteria stimulates almost every other disease, so as to deceive even the most elect of doctors; dyspepsia produces symptoms of heart disease or other deadly illness. There can be no question that a large proportion of faith-cures and mind-cures, and a considerable proportion of cases under ordinary medical treatment, are cases of mistaken diagnosis,

the disease being less serious in its nature than was supposed.

"*Mistaken prognosis* accounts for many cases; mistake as to what would be the outcome of the disease if no curative methods were employed. It is a truth seldom recognized by patients, though well known to physicians, that *in most cases not hopelessly fatal from the start, there is from the start a strong tendency toward recovery*. Dr. Austin Flint, Sr., than whom perhaps no abler physician has lived in this land, always urged upon his students the truth that no drugs but *vis medicatrix naturæ*, the healing power of nature, is the means of recovery. The wise physician and nurse seldom attempt more than gently and humbly to assist nature in her curative processes.

"Let me add the statement of a conviction derived from some years of such close scrutiny of medical practice of various schools as a pastor has good opportunity for—a conviction agreed to, I think, by most physicians. *The benefit of medicine is often not its direct action upon the disease, or upon the body, but its action upon the mind*, and through that upon the nervous system and the whole body, stimulating faith, hope, expectation of recovery, good cheer, which are probably nature's mightiest remedial assistants."

Discussing the question whether Christians can properly accept the theories and theological inductions of the supporters of faith-cures and mind-cures, Mr. Ray says:

"In view of the positions thus far taken, it is clear that faith-cure and mind-cure make no reasonable demand upon us to accept their theories of philosophy or of theology.

"It is clear to my mind that both the faith-cure and mind-cure theories are, though in widely different degrees, perversions of the gospel and injurious. A Christian may hold either one and still be a true child of God; for happily theological views are of far less importance than heart-love for God and man; but unfortunately, perversions of the gospel in the long run always do serious harm to other hearts and lives. I shall not now discuss the theology of the faith-cure, which I have on another occasion shown you to be unscriptural.

"It is also abundantly in evidence that while faith-cures and mind-cures, by their influence over the patient's hope and courage, often cure disease; yet, being ignorant of the human body, of anatomy, physiology and pathology, and depriving sufferers of intelligent and skilled medical and

hygienic advice and needed medicines, they not seldom cause death in cases which might have been relieved by proper treatment. They assume in their fanatical ignorance a responsibility which is fearful, and sometimes produces results inexcusable and criminal."

It is not often that such sound doctrines emanate from our brothers of the cloth.—*Medical Record*.

Obstetrical Society of Philadelphia.

PYOSALPINX IN ITS RELATION TO PUERPERAL FEVER.

DR. J. M. BALDY presented this specimen not simply because it was one of pyosalpinx, but because of its extremely important relation to the puerperal state, and, as far as he is aware, because it is the first of its kind ever operated upon and life saved when the patient was dying from so-called puerperal fever. The patient, Mamie P., 23 years of age, was delivered of a male child, after a tedious but normal labor, some four years ago. She was at that time confined to her bed for eight weeks with "an inflammation in her stomach." She, however, made a good recovery, and has not suffered from pain or ache in her abdomen since. On February 3, 1887, he was called to attend her in her second labor. Although he went with the messenger, he found the labor over: a dead child, together with the placenta and all the membranes intact, lay between her thighs. Her uncovered arms, chest, and legs were exposed in a room without a fire. No examination was made, but she was put between warm, dry bedclothes as quickly as possible. On the second or third day she had a chill, with a quick rise of pulse and temperature, and a tympanitic and tender abdomen. These symptoms abated somewhat, and he lost sight of her for several weeks. On the 3d of March, one month after her confinement, he was again summoned to her, and found that she had been suffering ever since he had last seen her. She had become so emaciated that he hardly recognized her; her temperature $102^{\circ}+$, pulse 130; she had continued chills and creeps, hectic, night-sweats, and sleepless nights; her abdomen was swollen and tympanitic and intensely painful; her bowels loose and fetid; micturition and defecation were both painful. She was evidently fast approaching death. An examination of the soft parts showed no sign of

a recent tear. The uterus was subinvolved, and on the left side there was a large boggy mass firmly adherent, tortuous, and extremely tender. The right side was tender, but no mass could be detected. Abdominal section was advised as the only remaining hope of saving her life, and the proposition was eagerly accepted by the patient and her friends. Dr. J. Price saw the patient and confirmed the opinion of immediate operation. He operated on March 5, the delay being necessary in order to have her surroundings cleansed. Drs. J. Price, McMurtrie, of Danville, Kentucky, and Mr. Eckman, of Scranton, Pennsylvania, were assisting. The right tube and ovary were healthy, and were not removed; the left tube was almost as large as the uterus, and firmly adherent in all directions, especially to the bowels, from which it was separated with great difficulty. An abscess of the cellular tissue was ruptured while breaking up the adhesions, and pus welled up through the abdominal incision. Both tube and ovary were removed. A large cheesy mass on the bowel at the point of adhesion was trimmed down with scissors, and Monsel's solution applied to the bleeding points. After a free irrigation a drainage-tube was put in, and the incision, which was only one and a half inches in length, was closed. The tube was found to be distended with pus; the ovary was disintegrated and contained pus. The patient rallied quickly, and had no shock; her pulse fell to 80 and her temperature to normal within twelve hours, and remained so. The tube was removed on the seventh day. There had been little or no pain; no catheter, no laxative or drug of any kind, had been employed. The day after the removal of the tube her pulse began to rise, as also did her temperature; pain developed in the left ovarian region, and she began to have hectic and cold creeps. About the eleventh day there was a free gush of pus from the tube-tract, and she began to improve again from that moment. A rubber tube was inserted and passed deep into the pelvis, and the abscess was washed out twice daily. The discharge gradually diminished, and the tube was again removed. The wound is now completely healed, and the patient is a well woman.

The belief that a certain proportion of our puerperal fever cases are simply cases of salpingitis septica is by no means a new one, and is probably held by most of the great operators in the world. Dr. M. Sanger says that "salpingitis septica coexisting with severe puerperal septicæmia has never

as yet given the surgeon an opportunity to remove the principal focus of disease by the extirpation of the tubes. It is possible, however, that under certain circumstances such a procedure might be indicated." Dr. Carl Schroeder holds that "septic endometritis does not extend to the tubes, as a rule. Occasionally, however, it does go on to a purulent salpingitis." That these cases do exist much more frequently than we have had any idea of is certain, and that oftentimes a life otherwise doomed can be saved by operative interference is proved by the case presented to-night. Mr. Tait mentions four deaths from this cause in Queen Charlotte Hospital alone, and says "that these cases were, during life, all regarded as puerperal fever." Dr. A. Martin, out of a total of two hundred and eighty-seven cases, found that seventy resulted from the puerperal state. Dr. Sanger mentions two cases which have come to his knowledge in which the over-distended tubes burst and discharged pus into the abdominal cavity, with death on the fourth day after confinement in one case and on the twenty-first day in the second case. He thinks that in both these cases the salpingitis existed before delivery, and mentions a case in his own practice in which this certainly was the condition. Hecker, as early as 1878, mentions two cases in which the pyosalpinx was old and was only lit up by the puerperal state. Whether the disease arises *de novo* or, having already existed from other causes, is simply lit up by the puerperal state, must be determined in each individual case. Hecker's and Sanger's cases, as mentioned, had a pre-existing salpingitis, but in the seventy cases reported by Martin the micro-organisms of puerperal septicæmia were found in the contents of the tubes, and no mention is made of any other micro-organism, so it is fair to presume that these cases arose from the puerperal state pure and simple. Of course, the possible contagion of gonorrhœa can never be eliminated except by a microscopic examination. In his case, although the trouble seemed very clearly to have arisen at the time of the second labor, possibly with her first labor also, yet the chances of gonorrhœal infection both before and after her first pregnancy are so great that he can not pretend to say it was not present. The operation has up to this time been done at least four times in Philadelphia. One case was operated on just two weeks previous to mine by Dr. Longaker, in which a pyosalpinx was found and removed, the patient dying on the second day. Dr. J. Price has since operated twice, and

in one case found more than a quart of pus in the abdominal cavity. The case unfortunately fell into his hands too late, and the patient survived only two days. These cases, though few in number, certainly teach us that the work done in this direction is encouraging, and, although a large percentage have died, it only warns us of the extreme importance of an early diagnosis and prompt surgical interference. It becomes our imperative duty in every case of post-puerperal trouble to make a thorough investigation of the case on the appearance of the first symptoms, and should a fullness be found on either or both sides of the uterus, accompanied by pain on touch and with constitutional symptoms of gravity, there should be no hesitation as to the course to pursue. This being secured, our present high mortality of one woman out of every one hundred delivered in large cities, as recently stated in a statistical paper on lying-in charities in the United States, must be largely diminished, and the fatal influences now surrounding our parturient women must become infinitely less.

Dr. J. Price remarked that the operation in this case was difficult and tedious, and was done with great care. He believes that the conception can take place coincident with desquamative salpingitis. Salpingitis even of gonorrhœal origin may affect one tube only, and the other, being normal, may give exit to an ovule. Six months ago he removed a large pus tube from the right side; the woman is now four months pregnant. If he finds induration and distention of a tube with inflammatory symptoms during the post-parturient period, he does not hesitate to operate at once, the operation involving less danger to the patient than the rapid progress which the inflammatory process will take at that period. He read from a letter from Mr. Tait, "There can be no doubt as to the frequency of the occurrence of puerperal pyosalpinx, and what we want to do is to hammer at people until we get them to open the abdomen in primary puerperal peritonitis." Dr. Price does not think septic post-partum salpingitis would be unilateral. He would also call attention to the extreme degree of degeneration that has taken place in the tissues of the tubes themselves, and most commonly unilateral only: they are quite cheesy in character. This change could not occur in so limited a space of time, a few days only.—*Med. Times.*

Intracranial Tumor.*

BY PROF. J. M. DA COSTA.

A Clinical Lecture delivered at the Pennsylvania Hospital.

[After detailing the general history of the case, the lecturer continued as follows:]

There is, in my judgment, one of only two possibilities in this case: Either the boy has a chronic meningitis with thickening—and then it must be agreed to be at the base of the brain—or else he has a tumor of the brain. I can not see how you could explain the phenomena that exist here—which are those of a defective sensation on the left side, disturbance of hearing and so on, with paralysis of the right side—on any other supposition than the two I have just mentioned, *i. e.*, meningitis, with thickening at the base of the brain, possibly crossing and not confined to one side, or else a tumor, which, by its pressure, produces the state of things which you have here. In regard to the question I have just mooted, as to whether it is a tumor or meningitis, we have a very correct history to start on: we have but the history of a boy who had violent headache preceding and following an injury to the back of his head; no history of blood poisons, no history of syphilis.

The history favors meningitis, although I do not think it meningitis, but am inclined to regard it as a tumor, if we can get over that single fact of the history being in favor of meningitis, and perhaps the fall on the back of his head, which we would naturally say looks very much more like meningitis, with thickening, than like tumor. During the examination of this boy I have been inclined toward meningitis, but now, having obtained all the facts, I shall take occasion to give you my opinion, that it is possibly a tumor, and not meningitis; notwithstanding what I have just mentioned with respect to the history being in favor of meningitis, notwithstanding all this, there are these points against the existence of meningitis and its ability to produce the paralytic phenomena:—

First, the absence of fever. In my experience with it, meningeal trouble always gives rise to fever or febrile fits, and very often that fever is a nocturnal fever, and very often with nocturnal delirium.

*Extract from a report in *Progress*, April, 1887.

Again, there is another point ; the temperature is against meningitis. My experience is, that in meningitis of the base, superficial portions of the brain become more or less affected, and irritability of temper and some other cerebral symptoms other than headache will be present, but this boy seems only intelligent. These I give you as some points which are against the occurrence of meningitis, with thickening; and I may add another one, this boy has had no convulsions. When there is meningeal thickening of any extent you are very apt to have convulsions. These are much more frequent with meningitis than with tumor.

Partial choking of the disc may be counted for but little, or, rather, in favor of a pressure which is caused by a tumor.

I will now point out to you some facts which we have under discussion in regard to the tumor. Let us have some idea as to where the tumor might be situated. With reference to the character of the tumor, it is always a difficult matter to get at a conclusion ; it is a tumor of slow growth. I shall pass over the conclusion that it is a non-malignant tumor, without any remarks, for the boy's age is against its malignancy. It is most probably a tumor with abundance of areolar tissue.

Is it possible that it be an aneurism within the brain? Not likely ; the boy's age is against this also, for intracranial aneurisms generally occur late in life. There is a test which is somewhat fallacious, but which is of some value. With a stethoscope placed over the brow, you may sometimes hear the buzzing sound of the aneurism. There is no such sound to be heard in this boy. It is, then, a non-malignant tumor of slow growth.

Where is the situation of this tumor? It is not always easy to say positively where the tumor is situated ; sometimes it is very easy. The physiological data sometimes point to the situation with unmistakable clearness. Nevertheless I think I can about locate this tumor in a manner which will be satisfactory when you have heard the reasons. You could not have paralysis of sensation on one side of the face, with palsy of motion on the other side of the body, unless the lesion were very low down ; in other words, this tumor must press on the origin of the nerves as they go to the left side of the face. It must be above the decussation. Its situation must be on the left side posteriorly. It must press near the origin of the left nerves, or you would not have loss of sensation in the left side of the tongue and face ;

it presses, moreover, near the origin of the portio mollis ; it is not only near the portio mollis that it must press ; it must be near the very origin of the nerve before it goes into its two branches, for the portio dura is also paralyzed. There is paralysis of the gustatory nerve, as you see by this palsy of the left side of the tongue, and the defective condition of the taste. This tumor is, therefore, at the base of the brain, near the origin of those nerves.

Now we come to his treatment. We will place this boy on large doses of iodide of potassium. I do not know of any remedy from which he is likely to receive more benefit. He is now taking ten grains of the iodide of potassium and one twenty-fourth of a grain of the bichloride of mercury. The boy reports that he is slightly better of his headache, but there is no improvement in his gait. Shall we continue this treatment ? I shall prefer larger doses of the iodide. He should have twenty grains of the iodide three times a day. And now what else ? Blisters to the back of his neck and a laxative two or three times a week.

I am at a loss what to tell you about the cause of the boy's tumor. There is nothing in his history which looks like syphilis, and I must, therefore, leave the cause of the tumor in doubt.

In regard to the treatment, remember large doses of the iodide of potassium, and watch its effects ; blisters to the back of the neck ; laxatives two or three times a week, and if the headache prevents his sleeping, I shall then give him chloral.

Euphorbia Heterodoxa.

BY JAMES BARNSFATHER, M. D.,

Member of the Pharmaceutical Society of Great Britain, Dayton, Ky.

THE Brazilian euphorbiaceous plant, the *alveloz*, the milky juice and resin of which have been recommended as a cure for cancer and ulcers of a malignant type, destroys morbid tissue without much pain, but causes smarting on healthy flesh. I may state that in *all* the cases I have used it, it has acted on the kidneys.

The first cancer case I treated with *alveloz* was in October, 1885. The following is a copy of a letter I sent Dr.

John B. Hamilton, Surgeon-General, U. S. Marine Hospital Service, Washington, D. C., and his answer:

"In the July number of the CINCINNATI MEDICAL NEWS I saw a notice of the new alleged cancer cure, 'alveloz milk,' and of your exhibiting a patient at a meeting of the Medical Society, showing a cure of lupus of the nose by its use. I wish to state that I have at present a patient in Cincinnati who is suffering with carcinoma uteri, and whose case has been given up by two physicians as hopeless, and who was at death's door from five weeks' hemorrhage, previous to my taking charge of the case. I have had her under the alveloz-milk treatment for fourteen days, and in that time the improvement has been marked. The physiological action of the drug is as follows: On application to the os, there is an intense burning feeling in the vagina, lasting from two to four hours. Absorption of the medicine evidently takes place, as in six hours after every application profuse discharges from the kidneys of a highly colored and offensively smelling urine commence to flow, and continue at intervals of two or three hours, until about a gallon has passed. The local bleeding ceased after three applications to the os, and since that time there has been a continuous flow of pus. I may state also that the lancinating pains have completely ceased, and she was able yesterday to get out of bed, dress herself, and walk into another room, without any ill effect whatever. She also eats and sleeps well since the application of the remedy, with the exception of getting up to pass water every two hours of the night. *The skin also has lost its sallow hue*, and the patient states her nervous irritability is entirely gone."

Answer: "Washington, October 23, 1885. Your favor of the 20th is at hand. I am obliged to you for your account of your experience with the alveloz. How did you apply the drug? Those who have used it here claim that they have had entirely negative results. My experience varies; with some samples the effect is all that could be desired, with others there has been no benefit whatever. I have had much better results with the resin, which comes in granular form, than with the later samples of the 'milk,' which seems very unstable, and in some cases worthless. If it had proved equal to the first, I should have been glad, but I do not think it at all certain as to freshness. I should like to hear further from you as to the outcome of your cases.

"Dayton, October 28, 1885. Received your very kind letter, and in reply beg to say I apply the drug to the os uteri with a brush, through a glass speculum, and repeat the application every twenty-four hours. My patient still enjoys freedom from pain, and only complains of the annoyance of passing water so often. Since I wrote you, eleven small pieces from the inside of the cervix have passed, and I can push my finger easily to the os internum. *Manipulation causes no bleeding now.*"

The patient lived three months in comparative ease, but actually died from acute peritonitis. Her husband told the writer that, although he knew it was a hopeless case, still the alveloz had saved her "ten thousand pains" she would have suffered if it had not been used. He said: "that alveloz is not only worth its weight in gold but in diamonds."

Dr. Hamilton, in his letter, makes reference to some of the samples of alveloz *as being worthless*. I beg to indorse that statement as being only too true, as I have at present in my possession an imported bottle marked Alveloz Milk, with Thomas Christy & Co.'s label on it, 155 Fenchurch Street, London, England, *which has no virtue in it whatever*. It looks like vaseline. [The energetic alveloz looks like pale butter, with the consistence of vaseline. The phials hold six grammes (5 jss.), and cost \$6.50 each.] To be sure I was correct, I applied it to the face of a patient I had used the good alveloz on, and next day she told me it neither acted on her kidneys nor did it smart round the sore as the other did. It is a shame that men, for the sake of a little gain, will adulterate costly drugs; but I can not believe that an eminent drug-house like Christy's would countenance such a thing; it must have been done before they received it. As the virtue of this drug lies in the resin, I suppose there is no resin in my sample. The resin is obtained by treating the alveloz with water, and afterward with absolute alcohol.

Formula for use: Resin, 1 part; vaseline, 33 parts. Mix and apply to the parts affected.

In my first case I used the drug simply, and did not even put an absorbent cotton tampon in the vagina, as I wanted to see what it would do, and govern myself accordingly in subsequent cases; hence, this may account for the burning the patient complained of in her vagina. Now I tampon in all cases, and my patients do not complain of that intense

burning. I prepare my tampons by saturating them with benzoic acid dissolved in alcohol. I use them dry, and pack them against the cancerous mass, and it acts as a disinfectant to the discharges as they are absorbed. After all the cervical cancerous growths have been removed, I then saturate the tampons with resorcin dissolved in glycerin (one to seven), and apply after the alveloz has been placed in the uterus. It seems to act very nicely, causing the stump to heal over.

My principal object in writing this article is to bring before the medical profession the fact of the absorption and peculiar action of this drug on the systems of those afflicted with cancer, as I do not think it has been mentioned by any writer on the subject, and hope that those gentlemen who are experimenting with the drug will carefully watch the alterations in the urine microscopically and otherwise, and perhaps they may be able to solve the problem which has baffled the profession to the present time.

With our present knowledge of the drug I do not believe that an old-standing case of cancer, where the whole pelvic cavity is involved, can be cured by the topical application of the medicine, even if by absorption it seemingly attacks the constitutional infection (if we are to judge by the offensive discharges from the kinneys after each application, and the sudden cessation of those discharges when the drug is not used, and the clearing up of the skin while those discharges are going on, and the feeling of lightness patients say they feel under its use, when before they complained of a tired, weary, lifeless feeling, and often wish that death would end their sufferings); but we shall have to look to some other form of the drug as an adjunct, and give it hypodermically, so that we shall be more likely to avoid inflammation of the gastro-intestinal mucous membrane, and the dangerous and sometimes fatal prostration which follows the swallowing of any of the products of the *Euphorbiaceæ*. —*New York Medical Journal*.

Antipyrin.

BY DUDLEY TAIT, B. S., M. D., KANSAS CITY, MO.

Editor Index :—Please allow me, through your interesting periodical, to express my surprise on perusing the recent

report read before the Jackson County Medical Society concerning the therapeutic effects of antipyrin. No mention whatever is made of its properties excepting those pertaining to hyperthermia and arterial tension. In the report to which reference is made the subject appears, to me, as having been abridged in a very irrational and incomprehensible manner. What general hilarity a report on iodide of potassium would provoke, if its contents referred to syphilis alone! The present case is a parallel one. The knowledge of the antipyretic properties of antipyrin, although valuable, should not, under any circumstances, exclude its effects equally interesting and remarkable on other morbid elements—on pain particularly.

Antipyrin has been successfully prescribed in numerous neuropathic conditions characterized by pain alone; in many acute articular rheumatismal and gouty affections it works admirably; pain will cease and hydrarthrosis disappear within two to four days, without giving rise to any cardiac or renal trouble.

But the maximum of its therapeutic effect is observed in nervous troubles of sensibility; migraine, cephalalgia (idiopathic or "*of growth*"), facial neuralgia, neuritis (in diabetes and zona), muscular and neuro-muscular pains, so frequently observed in neuropathic patients. To these different categories of painful conditions one may add the persistent and rebellious pains which mark the onset of locomotor ataxia, and which recent researches have localized in the peripheric nerves, contrary to the opinion of Charcot and Vulpian.

In no case is the action of antipyrin so evident as in migraine. I have personally resorted to its use, and have prescribed it on various occasions with very gratifying results. It gives me pleasure to say that my learned friend and confrere, Ambrose Talbot, has met with great success in similar cases.

The hæmostatic and antiputrid properties of antipyrin were also omitted in the report mentioned. According to Arduin (of Paris) antipyrin, as a hæmostatic agent, surpasses perchloride of iron, being, however, inferior to ergotin.

These properties have recently been utilized in the treatment of flatulent hæmorrhoids, and neoplasia of the cervix uteri. The use and value of antipyrin in acute articular rheumatism are too well known to be analyzed here; it is only necessary to give the quotation of a few conclusions read before the

Medical Society of Berlin by Fræmpel, Guttman, Marggraf and Leyden :

[1.] Antipyrin possesses a specific action against acute articular rheumatism.

[2.] The treatment should commence with antipyrin, the secondary effects of this drug never being produced to any extent.

[3.] Antipyrin, while useful and sufficient in the majority of cases, will not take the place of salicylic acid in all cases of acute articular rheumatism.

Concerning the mode of administering antipyrin, I would suggest ice-cold water or aquæ menthæ piper. One gram every two or three hours is sufficient in most cases, the required maximum very seldom exceeding six grams. In case of complications following the use of this medicine (nausea, vomiting, cephalalgia, vertigo, exanthema), the dose must be fractioned by half grams.—*Kansas City Medical Index*.

Gleanings.

THE INDICATIONS FOR THE USE OF ALCOHOL IN ACUTE DISEASES.—It is getting to be a quite well-established canon of medicine that most healthy men are better without alcohol taken in any form or at any time. We are inclined to add that Americans do not bear it so well as Europeans. That it can be dispensed with altogether in medicine, however, is a thing not to be admitted, and medical opinion almost unanimously supports this view. But no doubt alcohol is often used more promiscuously than it should be, especially in hospitals, and the observations and conclusions of Dr. Collie regarding the indications for its use (*The Practitioner*) deserve close attention. Dr. Collie admits that alcohol is not required in the mildest cases of fevers, nor in the severe if the patient be taking a sufficiency of food, nor generally in young adults of the well-to-do classes. These are great admissions for Dr. Collie to make ; but in opposite circumstances he maintains it is more or less necessary, and we advise our readers to consider his opinions. Briefly, in the chief fevers, to which his authority applies, they are as follows : In typhus, alcohol is rarely required for children or adults under thirty ; but after this age it is necessary, and

often in considerable quantities. It may be dispensed with early in convalescence, as solid food can be taken as soon as the temperature falls. In scarlet fever alcohol is not required, as a rule, at any period of the disease. But in very poor children, in early convalescence, with abscesses or brawny neck, alcohol, in the form of port wine, is indicated. He considers port, say four to eight ounces, good for children of the age of from four to six. For procuring sleep it is better than opium. In enteric fever the chief value of alcohol is during convalescence, where solid food can not safely be taken for from ten to fourteen days from the return to normal temperature. Alcohol is contraindicated in cases of hemorrhage unless collapse has resulted. Burgundies and champagne, of well-approved brands, are, he thinks, the best forms.—*N. Y. Med. Record.*

THE THERAPEUTIC USES OF THE HOT BATH.—Some time ago an opportunity was afforded me of making some observations on the effect of a hot bath in removing some morbid conditions of the system. A man of middle life, in temperament nervous-sanguine, spare, and somewhat below the average height and weight, complained of languor, debility, want of energy, and lowness of spirits. On examination it was found that his heart and arteries were sound, though his circulation was rather weak. His alimentary system was fairly good, though the quantity of food taken was below the average. His skin was somewhat dry, and a few spots of psoriasis were found on the extensor aspects of the legs, arms and trunk. His urine was cloudy, with phosphates, and below the average in quantity. As the Turkish bath was not in this case available, he was advised to take a water bath at a temperature 105° F., and directions were given how to proceed in case of faintness. The day after taking the bath his condition was wonderfully improved. His circulation was stronger, his urine was clear, and he now felt cheerful and well. This improved state of matters continued for about twelve days, when all the unpleasant symptoms reappeared, and he began to feel as ill and dejected as ever. The most natural proceeding was, of course, to order him another bath, and this he took with the same happy results as before. Since that time he has had the hot bath about once a fortnight, and by this means has managed to keep himself in very tolerable health and spirits. If faintness should come on while in the bath, the whole head should

be immersed in the hot water, and kept there for a few seconds, when the faintness will disappear. The usual directions given in public baths are to get out of the bath as soon as drowsiness and faintness begins and ring for the attendant; but any one who attempts to do this will most certainly aggravate his danger. As pointed out some time ago by Mr. Benham and subsequently by myself, the application of heat to the head is a potent means of averting syncope. From time to time we hear of deaths in the warm bath; and I am convinced that many of these might have been prevented by the adoption of the simple method referred to, instead of the deadly and often impossible means commonly recommended. —*Dr. Noltey, in Lancet.*

ACCOUCHEMENT DURING HYPNOTIC SLEEP.—In the *Weiner Med. Wochenschrift* a case is mentioned of a woman whom Dr. C. Braun succeeded in rendering unconscious during labor by throwing her into a condition of hypnotic sleep; the uterine contractions were particularly painful. They were equally violent during the period of unconsciousness, but the intervals were somewhat longer; dilatation of the passages took place in the most satisfactory manner, and delivery was speedily accomplished. The placenta was expelled into the vagina, and was easily withdrawn with the hand. On awakening, the patient did not complain of pain, and afterward slept naturally for several hours. One of the most interesting features of the case was that the uterine contractions induced contraction of the abdominal muscles without awakening the patient. Hemorrhage was very slight.—*British Med. Jour.*

SMALL VENTRAL HERNIAS AS A CAUSE OF GASTRIC SYMPTOMS.—In a recent number of the *Centralblatt für Chirurgie*, Lücke, of Strassburg, reports two cases in which, acting on Kussmaul's statement, made several years ago, that obstinate and distressing gastric symptoms were sometimes occasioned by hernial protrusions of small fatty masses in the neighborhood of the umbilicus, he cut down upon the lobule of fat, tied it off from the omentum, and closed the abdominal wall with sutures. In both instances the result was satisfactory. König, one of the editors of the *Centralblatt*, adds a note to the effect that for several years past he has operated on such hernias on account of their association with gastralgic and hypochondriacal symptoms, and with satisfactory results.—*New York Med. Jour.*

MOXIE.—From that excellent journal, the *American Analyst*, we learn that Francis Wyatt has analyzed Moxie with the following result: One hundred parts by weight when distilled were found to contain three-fourths per cent. alcohol and one-fourth per cent. of the essential oils of sassafras, wintergreen and anise. The residuum in the retort was evaporated to dryness, and contained 7.880 per cent. of extractive matter, consisting of—

Sugar, - - - - -	3.810
Glucose, - - - - -	1.250
Sodium Carb., - - - - -	1.070
Sassafras, - - - - -	} 1.870
Gentian, - - - - -	
Checkerberry, - - - - -	
Quassia amara, - - - - -	

The latter exists in the original as infusion, mixed in proportion to allow the sassafras to preponderate. A twelve ounce bottle would require about one drachm each of powdered gentian and quassia, fifteen minims of the oils of sassafras, gaultheria and anise, a drachm of alcohol, the same amount of soda, seventy-five grains of glucose, and half an ounce of sugar, with water slightly impregnated with carbonic acid gas, to make up the amount. Dr. Wyatt adds that the result of his investigation shows the mixture to be simply a mild, inoffensive tonic, an agreeable drink, incapable of exerting the slightest action on the brain or nervous system.—*Medical World*.

DRUMINE, AN AUSTRALIAN LOCAL ANÆSTHETIC.—John Reid, M. D. (*Australian M. Gaz.*, Oct.), gives an account of a new local anæsthetic discovered by him in a weed growing wild in Australia, and known as *Euphorbia Drummondii*. The plant causes death in sheep, cattle and horses in from twenty-four hours to seven days, all presenting paralyzed extremities, while the appetite remains unimpaired. The method of obtaining the alkaloid, for which the writer proposes the name of Drumine, is as follows: A tincture is first made with rectified spirit and allowed to stand a few days; it is then evaporated to get rid of the spirit, ammonia is now added in excess and the solution filtered; after the ammoniacal odor has passed off from the residue, it is dissolved by means of dilute hydrochloric acid, filtered through animal charcoal, and slowly evaporated, which leaves the alkaloid. Drumine is insoluble in ether,

freely soluble in chloroform and water, and deposits from solutions microscopic acicular and stellate crystals. The writer has made experiments on cats. In the case of an old man with sciatica, and in a case of sprain in a boy, four minims of a four per cent. solution injected subcutaneously acted like magic. On the tongue and hand marked anæsthesia was produced, the sense of taste (quinine) was abolished on the side of the tongue to which the drug was applied. No constitutional effects were produced by small doses taken internally.

VERTIGO.—Dr. Willard (in *New York Med. Record*) found the following the best treatment in obstinate cases of vertigo :

After trying the various remedies recommended in the text-books, and not deriving the results I desired, I applied blisters to the neck, and in some cases, when the pain in the back was severe, all the way down the spine. The result of the blistering was very satisfactory, improvement beginning almost immediately, and my patients are to-day attending to their ordinary duties. Of course I did not neglect but continued general treatment. I think that the use of blisters in these cases can not be too highly recommended, even though we can not explain the *modus operandi*. In the treatment of these cases I used a blister which does not contain cantharides, and which is free from the exceedingly unpleasant complications of strangury. These blisters, or "issue plasters," as they are called, have proved very satisfactory in my hands, not once producing unpleasant symptoms—they blister quickly, without pain of any consequence, and by returning them to the blistered surface an issue can be kept up for any desirable length of time—and, as I remarked above, without the slightest fear of strangury occurring as a complication. I greatly fear that with the general practitioner the beneficial effects of judicious blistering in these and other similar cases, is oftentimes lost sight of in dread of the unpleasant symptoms produced by cantharides.

NOTE ON THE TREATMENT OF THREAD-WORMS IN CHILDREN.—The complete cure of thread-worms in children is often very difficult. While the ordinary methods used, such as rectal injections of salt and water, infusion of quassia, and other remedies, do good for a time, yet they often fail to relieve the attendant symptoms of "worms," symptoms

usually very irregular, and in some cases severe, in character. In many cases, though the irritation about the anus is relieved by injections, the irregularity of the bowels and the disturbance of sleep remain the same. This is probably due to the fact that the habitat of the worms is higher up in the large intestine, where no remedy introduced by the rectum can reach them.

In many cases I have found that rhubarb in small doses brings away large numbers of worms, and at the same time regulates the bowels, so that the use of injections may in most cases be dispensed with. The formula which I have found most useful is as follows, varying slightly with the age of the child :

R. Tincture rhei	-	-	- <i>m</i> iij.
Magnesiæ carbonatis	-	-	- gr. iij.
Tincture zingiberis	-	-	- <i>m</i> j
Aquam, ad	-	-	- $\bar{3}$ j.

This is to be taken twice or three times daily according to the effect on the bowels. Whether the rhubarb acts as a vermicide or simply by "moving the worms on," I am unable to say. — *Practitioner*.

PHTHISIS TREATED BY OPEN AIR.—Richard Neale, M.D., (*Brit. Med. Jour.*) gives the case of a patient aged 24, with great emaciation, rapid pulse and high temperature, scanty expectoration often highly tinged with blood, and a distinct cavity on right side, the left lung being fairly healthy. Weight 116¼ pounds. The family had had considerable experience with such cases, and agreed to the open air treatment. A large roof facing south and in a house in an elevated situation was selected, and cleared of all furniture except the bare requisites. The bed was sheltered from draughts, the windows left wide open at the top, the door left open, and other doors and windows communicating were also left open. Woolen clothing for the whole body was worn day and night. Iodine was freely distributed about the apartment, and a pad soaked in terebene was placed under the patient's chin while he slept. Food was pushed; cod-liver oil and iodoform pills and iron given; an occasional aperient pill, and one of belladonna and oxide of zinc to control night-sweats. Treatment was begun September 15, and November 3 there was but seldom a slight tinge in the expectoration, and the lung showed evident signs of repair. Weight 125 pounds. The patient then went to Australia.

LAPAROTOMY AS AN AID TO HERNIOTOMY.—Fenwick records a case in the September *London Lancet* (1885), showing the value of laparotomy as an aid to herniotomy. The operation owes its origin to a suggestion of Mr. Annandale, who pointed out how much easier it is to draw a loop of bowel up than to press it back, piece by piece, into the peritoneal cavity. A man, aged fifty-three, was admitted into the London Hospital with a strangulated left inguinal hernia. All attempts at reduction failed, and an operation was decided upon.

The sac was opened and the neck incised, but every time a piece of the gut was pushed back into the peritoneal cavity it shot out again. The author then decided to open the abdominal cavity, and made a two-inch incision just above the pubes. The left fore-finger was introduced into the abdomen and hooked under the gut, and the entire gut was easily drawn into the abdomen. The patient, however, died six days after the operation from exhaustion. The author advocates this method of treatment in cases of strangulated hernia, and believes that the small abdominal wound would not add to the risk of herniotomy.

THE DIAGNOSIS OF THE CROWN PRINCE'S MALADY.—Dr. Morell Mackenzie, of London, has sent a cablegram to *The Medical Record* in which it is stated that the tumor in the throat of the Crown Prince of Germany is of a dense warty character (*Pachydermia Verrucosa*).

A most important statement, based upon the authority of Professor Virchow, is that no morbid products are discoverable by the microscope in the submucous tissues. The prognosis, therefore, based upon this examination, is to be regarded as most favorable.

A growth presenting such characteristics possesses no elements of malignancy, and depending as it may upon various constitutional as well as local causes, is, as a rule, perfectly amenable to treatment.

This information thus received from most authentic sources would seem to set at rest the question of doubtful diagnosis and relieve the minds of the many interested in the nature of the Crown Prince's malady.

SMALL-POX AND COW-POX.—George Flemming, LL.D., writes to the *Lancet* of November 20, that the generally accepted belief that "vaccine lymph is the virus of small-pox modified by transmission through the cow," has not been

proved. He calls attention to the fact that although Mr. Ceely reported a case in which he produced cow-pox by inoculating a cow with small-pox matter, yet when twelve heifers were placed at his disposal and inoculated by Dr. Klein, cow-pox was not produced in a single instance. The same result attended experiments made in France, and at Turin, where the Italian Commission labored on a large scale and for a long time, not a single case of cow-pox was produced by inoculating cows with small pox virus. The writer thinks it impossible that small-pox virus could be so completely changed by one passage through the cow, while vaccine lymph passes without change through so many generations of human beings.

THE TYPHOID BACILLUS.—MM. Widal and Chantemesse have succeeded in carrying researches on the bacillus of typhoid rather further than Gaffky, who described it. The center clear space is not, they say, characteristic, as Artaud supposed, for it was found in other bacilli, especially those of old culture; and it is, they believe, the beginning of the death of the microbe. Spores are produced between 37° and 38° C. It does not liquefy gelatine, and is easily cultivated on potato. Gaffky was unable to find the bacillus in the living subject, or to inoculate it. MM. Widal and Chantemesse have found it during life by making a capillary puncture of the spleen, and they have been able to inoculate both mice and guinea-pigs so as to find the bacillus in the abdominal viscera and lungs. In a case where a typhoid patient aborted in the fourth month the bacillus was found in the placenta.—*Lancet*.

INTERNAL AND LOCAL MEDICATION IN THE TREATMENT OF HERPES ZOSTER.—During the past year and a half there have come to my notice, at various stages of the disease, a number of cases of herpes zoster, and as the following method of treatment has given very gratifying results, it occurred to me that it might be of interest to your readers. The treatment consists briefly in the administration of a blue pill (two or three grains) twice or three times during the day, and the local application of zinc ointment carbolyzed (two per cent.), the parts being also protected from irritation of the clothes and other external influences. In every case so treated the pain ceased and the eruption was controlled in the course of a day or two, or after the purgative effects of the drugs had disappeared, the vesicles drying up, leaving

brownish crusts, the latter dropping off in the course of a few days.—*Philadelphia Medical News*.

OPHTHALMIA NEONATORUM.—J. E. Weeks, M. D., gives in the *Medical Record* of July 24, 1886, the treatment of this disease as followed at the New York Ophthalmic and Aural Institute: The conjunctival sacs are cleansed thoroughly every half hour, or more often if the discharge is profuse; constant applications of cold to the lids by the use of small pieces of linen, which are placed on a cake of ice near the patient, and are changed to the eyes every half minute, or as soon as the piece on the lid becomes warm another piece is substituted. The conjunctivæ are brushed with a one or two per cent. solution of nitrate of silver morning and night, commencing when the discharge becomes profuse. If corneal applications arise, one or two drops of a one-half per cent. solution of atropine are instilled twice or three times a day.—*American Lancet*.

EAR CASES.—R. A. D. Robb, M. B (*Brit. M. Jour.*, Nov. 27), mentions the value of chloroform vapor in cases where intolerable pain is the chief complaint. In cases of furunculosis, and in diffuse inflammation of the external meatus, as well as in acute inflammation of the tympanic membrane, he has found it to relieve the pain so much that the patients considered themselves cured. He has obtained permanent relief in cases of otalgia, in which, on examination of the ear by means of the speculum and mirror, no apparent cause for the pain could be ascertained; and in neuralgia where the pain was shooting all round the ear, and seemed to originate from it; and in ear-ache from carious teeth, etc. The vapor, not the chloroform itself, should be introduced into the ear, as the latter might cause irritation.

ANTIPYRIN.—Prof. A. Fraenkel, assistant physician in the *clinique* of Dr. Leyden, has published the results of some experiments with antipyrin in the treatment of rheumatism. This substance is a specific in acute articular rheumatism. Out of thirteen cases of slight severity, a cure was rapidly effected in nine, whilst out of twenty-one serious cases, the remedy was successful in four. Antipyrin has the great advantage over other specific remedies for rheumatism that it has no bad subsequent effect. While salicyl causes tingling in the ears and hallucinations, Prof. Fraenkel only once ob-

served sickness, and once a peculiar eruption, after the use of antipyrin. In spite of its superiority in this respect, antipyrin has no effect in preventing the development of endocarditis; it can not, therefore, take the place of salicylic acid in all cases.—*Compendium*.

HOW TO GIVE IRON.—Professor Germain See does not know everything, even if he does live in Paris. Concerning the administration of iron he says: "It will precipitate the gastric juice taken before meals, therefore take it while there is something in the stomach to prevent this. It is not known how it gets into the circulation, because it is not seen to go out. In any case, give it *with meals*." The latter sentence shows his ignorance. Most people eat food containing tannic acid; tannic acid unites with iron to form an insoluble tannate of iron. One hour after eating, the tannic acid will have passed from the stomach; then the iron should be given, and those who have heretofore been disappointed in the use of iron, will be surprised at the beneficial results obtainable from the agent.—*Index*.

DR. EDSON (*Chicago Medical Times*) gives this as his three day cure for gonorrhœa:

R_y. Oil sandal wood,

F. E. quillea sapo, - - - - aa ʒiv

Mix and shake. Add glycerine, Aquæ cinnam, aa ʒiii

M. Sig.—Teaspoonful four times a day.

At the same time this injection:

R_y Morph. sul., - - - - - grs. iii

Muriate berberina, - - - - - grs. x

Zinc sul., - - - - - grs. viii

Bismuth sub. nit., - - - - - dr. iv

Aqua rosa., - - - - - ʒiv

M. Sig.—Inject small amount after each micturition.

MT. HAMILL, IA., April 4, 1887.

The Provident Chemical Works, St. Louis, Mo.:

Gentlemen:—Yours and samples of chrysaline phosphate at hand. Am pleased with its appearance. Its compact form must commend itself to every physician. Shall be pleased to use it where indicated, and continue it if equal to other phosphates, as it certainly is handier and cleaner.

Yours truly,

C. F. WAHRER, M. D.

Book Notices

- A TREATISE ON DIPHTHERIA, HISTORICALLY AND PRACTICALLY CONSIDERED; INCLUDING CROUP, TRACHEOTOMY AND INTUBATION. By A. Sanné, Docteur en Médecine, Ancien des Hôpitaux de Paris, etc. Translated, Annotated, and the Surgical Anatomy Added; Illustrated, with a full page Colored Lithograph, and many Wood Engravings. By Henry Z. Gill, A.M., M.D., LL.D., Late Professor of Operative and Clinical Surgery in the Medical Department of the University of Wooster, at Cleveland O., etc. 8vo. Pp. 656. Cloth. St. Louis: J. H. Chambers & Co. 1887.

This is the largest monograph we remember of ever having met with. The subject of diphtheria has been taken up, and treated in the fullest detail by the author. There has never been any work published that contains so full information in regard to the disease as this one. The reader will find in it a complete history of the affection from the time it was first recognized to the present time, together with the views held by as many as a thousand writers who have written upon it, as Aretæus, Bretonneau, Trousseau, Barthéz, Bozin, Chaussier, Chapman, Bichat, Duval, Æquineta, Fabre, Greenhow, Hallin, Hoffman, Marchal, Pepper, Radcliff, Santy, Thoso, Townsend, Valentine, Wilson, Zurkowski, etc. Besides containing a full-page colored lithograph plate, exhibiting the larynx and upper portion of the trachea, the large arteries and veins of the vicinity, the thymus gland, hyoid bone, the sterno-hyoid, veno-hyoid, and sterno mastoid muscles, it also contains forty-one wood engravings, illustrating important features.

Bretonneau immortalized himself by his investigations of diphtheria. It is said that he made it his study day and night, and became so engrossed in its study that he would refuse to give attention to persons suffering with other ailments. Trousseau supplemented his description of the disease by observations which had escaped him. Though much which these two great physicians announced to the world as the result of their researches has stood the test of subsequent investigations—many of their theories remaining unshaken—yet many new views have been enunciated, and certain important phenomena have been carefully examined if not fully explained.

As Dr. Sanné says, the disease has continued its career, and has extended almost to the entire world. Since the time of Bretonneau thousands of physicians have investigated the phenomena presented by the disease, giving the subject their very best thought. Millions of pages, we can probably say without exaggeration, have been written in regard to it in volumes of the principles and practice of medicine, in monographs, and in medical journals, many of these containing important facts which are worthy of record to be permanently preserved. But these facts, scattered throughout vast numbers of publications, would be collected, classified, the approved acquisitions noted, the state of our knowledge upon points still in dispute set forth, only by vast labor.

Dr. Sanné states that, to this work, he has been irresistibly attracted. Having been a student of Trousseau and Barthez, two teachers of medicine who have contributed very greatly to our knowledge of diphtheria, he has been enabled to study it very closely. But his work has not been that of a compiler only, by any means, for he entered upon investigations of his own. He made, he states, an immense number of observations of his own at the Sainte Eugénie and in his own private practice in the city of Paris. Besides he has been able, also, to add notes taken of all the cases of diphtheria entering the service of Berthez from 1879 to 1875.

We will give our readers a clearer idea of the work and of its great value in affording a most interesting account of all that is known respecting diphtheria, by quoting from the preface of the translator, Prof. Henry Z. Gill, formerly professor in the University of Wooster, Ohio :

"About eighteen years ago the question of the nature of diphtheria and membranous croup—its oneness or duality—attracted my special attention and study. Having become acquainted with the German view from the personal instruction of Virchow, and then examining the subject as held by the French, and those two views so diametrically opposed as dividing the suffrages of the English and American authors and teachers, the subject grew upon my thought both in interest and extent. Was there no way of solving the problem—no way of reconciling these differences? * * * Very soon after its appearance in the original, I imported Sanné's work. Its fullness, taking every feature of the subject under consideration, tracing its

history down through the centuries, the clinical observations, the pathological manifestations, microscopical and clinical examination, and its inoculation—I confess the whole subject grew in interest, until it become almost a charm."

Diphtheria has become one of the most frequent diseases of this country, and proves fatal to thousands every year. In its malignant form it has often seemed to us to be necessarily fatal. We have known children to die in a few hours from the time they were attacked; again, we have seen others with whom, although they lived for two or three days, the progress to a fatal termination was so steady and uninterrupted that the physician could not help but feel that he was powerless in staying its course. So full and so complete is this work in information, giving the view and modes of treatment of all the distinguished medical savants who have made this terrible disease the subject of study, that we would think every intelligent physician would wish to possess a copy of it, so that he might have the opportunity of thoroughly studying it.

THE PRACTITIONER'S HAND-BOOK OF TREATMENT; OR, THE PRINCIPLES OF THERAPEUTICS. By J. Millner Fothergill, M. D., Physician to the City of London Hospital for Diseases of the Chest, Victoria Park; Late Assistant Physician to the West London Hospital, etc. Third American from the Third English Edition. Cloth. 8vo. Pp. 655. Philadelphia: Lea Brothers & Co. Cincinnati: Robert Clarke & Co. Price, \$3.75.

The name of Dr. Fothergill is very familiar to physicians of this country. His contributions to medical literature have been much read on this side of the Atlantic and greatly admired. There is no one who has a higher standing as a medical writer than he. He has long been regarded an authority in his department of medicine.

The work upon our table has now reached a third edition. The sale of a second and larger edition than the first shows the greater favor which it has met from the profession. The third edition has been carefully revised, and considerable additions have been made to it. A chapter on the "Dietary in Acute Diseases and Malassimilation" tells of the growing importance of dietetics in the treatment of disease. A second new chapter has been added on the "Man-

agement of Convalescence," which the author says he hopes will add to the value of the work.

There is no medical work in the English language in regard to which we are so impressed that physicians should both read and study as this work of Dr. Fothergill—"The practitioner's Hand-book of Treatment; or, The Principles of Therapeutics." It is not, as the author very correctly states, an imperfect Practice of Physic, but an attempt to reduce medicine to a science. The design of it is to furnish to the practitioner reasons for the faith that is in him. The physician, therefore, who has been engaged in the practice of medicine for a long time, and, in dispensing remedies, has had no other reason for selecting this or that medicine for fulfilling certain indications than experience, *i. e.*, has found, on trial, that a particular medicine is beneficial when certain morbid phenomena are present, through this work will have scientific light, as it were, to enlighten the whole proceeding. It is a humiliation to confess that the practice of medicine is empirical, but, nevertheless, such has largely been the case. Through the labors, however, of such investigators and thinkers as Dr. Fothergill, we hope it will not be long before the aspersion will be removed, and the physician will be able to give a scientific reason for every step he may take in the treatment of a case.

For nine years the writer has been laboring with the definite design of producing the present work. In consequence of its original character much difficulty has been felt from want of some guide to indicate, not so much what to insert, as what to leave out and when to stop. First, the physiology of each subject is given, then the pathology is reviewed, so far as they bear upon the treatment; next the action of remedies is examined; after which their practical application in concrete prescriptions is furnished.

While the work should be attentively studied by every medical student, yet it is no less adapted to the wants of the *experienced* physician, who has been educated in his profession with the impression from the beginning that the treatment of disease is entirely empirical.

Dr. Fothergill has the following to say in regard to heart affections: "In no class of diseases has there been so much improvement wrought in treatment by physiological research as in the diseases of the heart. In valvular affections we can do much to compensate the mischief done by fostering muscular hypertrophy. In stenosis, by increasing the driv-

ing power, we can have an equal quantity of blood passed through a narrowed opening in an equal time, and thus the equivalent of a cure reached—so long as that hypertrophy can be maintained in structural integrity. In regurgitation we can partly arrest the backward flow by increasing the blood-pressure, and by developing the muscular walls of the chambers, behind the lesion. In cases of simple dilatation we can often restore the chambers to their normal size, and even when that is not attainable we may induce hypertrophy, and so stay the dilating process; we can build up hypertrophy, and so endow the dilated heart once more with power.”

A TEXT-BOOK OF PATHOLOGICAL ANATOMY AND PATHOGENESIS. By Ernst Ziegler, Professor of Pathological Anatomy in the University of Tübingen. Translated and Edited for English Students. By Donald MacAlister, M. A., M. D., Fellow of the Royal College of Physicians, Fellow and Medical Lecturer of St. John's College. Three Parts Complete in One Volume. 8vo. Pp. 1,091. Cloth. New York: Wm. Wood & Co. Cincinnati: Garfield.

We consider it astonishing that such a valuable work as Ziegler's Text-Book of Pathological Anatomy should be printed on the inferior paper it is, and that it should display such poor presswork. Wm. Wood & Co. are extensive publishers of medical works—probably no house in this country publishes more—and certainly have every facility for issuing works in good style. It is therefore wonderful that they would send out a superior work in such a shabby dress. We hope that it has been done in order to sell it at a low price, so that it may be put within the reach of all.

As the knowledge of physiology and pathology makes progress, physicians are made more competent to treat diseases scientifically—empiricism yields to science. The two departments may in fact be regarded as forming the groundwork of scientific medicine. A person without any physiological or pathological knowledge may be able to employ, with beneficial results, certain remedies in the treatment of particular diseases, or use certain drugs to meet certain morbid indications, for the reason that he has learned either by his own experience or by the experience of others that this or that affection may be cured by such and such a medicine, but he will be blind as to the why and wherefore. He can

not give the reason for the faith that is in him. A pure empiricist in medicine is one who without medical knowledge has collected together a large number of prescriptions, which he has learned are beneficial in certain ailments, and in the faith of this information he starts out in the practice of medicine. He is a practical physician, who sometimes cures no doubt, but he probably oftener kill. A medicine will no doubt have the same action in different persons, providing all the conditions are precisely the same, but unfortunately for the empiricist they are not, and he is not able to discover when such is the case. A scientific physician administers his remedies in the light of his knowledge of pathology and physiology, and falls back upon experience when this light fails him, for these branches of medicine are in a progressive state.

German physicians more than those of any other nationality have investigated physiology and pathology. Very much of our knowledge of these branches we owe to their assiduous labors. By day and by night have they toiled in their laboratories with test-tube, crucible and microscope to add to the knowledge already known, and if possible to make a step forward.

Among the industrious investigators in pathology in Germany has been Prof. Ziegler, the author of the work before us. A great part of his text, he states, is based upon observations made or verified by himself. When he has drawn upon other sources he has carefully cited the needful authorities. The translator, Dr. Donald MacAlister, in translating the work, has fitted it for English students, besides making not a few additions of facts gathered from his own investigations, and of those announced in English and French publications, from which the author had made but few quotations.

The work of Prof. Ziegler is now the very latest which has been issued upon pathology and pathological anatomy. As these are progressive departments of medicine, to which additional knowledge is being continually added, it is an object with both medical students and physicians to possess the most recent works. The work before us, therefore, in consequence of being the last publication issued upon the subject, contains all of the most recent facts that have been added to what was already known of the department which constitutes with physiology the groundwork of scientific medicine.

ANEMIA. By Frederick P. Henry, M. D., Professor of Clinical Medicine in the Philadelphia Polyclinic, One of the Physicians to the Episcopal Hospital, Etc. Reprinted from the Polyclinic Boards. 18mo, Pp. 136. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co. Price, 75 cents.

Dr. Henry says that anemia signifies an impoverished condition of the blood, and that the term by which it is known is to be preferred, both on the ground of euphony and etymology, to such terms as spanemia, oligemia, oligocythemia, which have been introduced at various times on the plea of greater accuracy. "All the different varieties of anemia are characterized by a diminution of the number or value of the red blood corpuscles; that is to say, of the normal amount of hemoglobin."

The author says that the great majority of individuals who are "run down" in health, or suffering from "nervous exhaustion," which they attribute to overwork, are simply more or less anemic. "Overwork," he says, "is the unfortunate scapegoat whose erratic conduct renders him an easy prey to both physician and patient. Work may rather be regarded as a raw, nutritive material, which is usually prepared and served in an underdone condition. There may be exceptional cases in which anemia is justly attributed to overwork alone, but the writer has never seen one. There is a careless way of regarding this matter, which leads to inaccurate statements. For instance, if the hours of work encroach upon those of sleep, it is the want of sleep as much as the excess of work, that is to blame for the resulting anemia. If the irrational worker neither takes the time to eat nor digest his meals, his anemia is due to inanition or indigestion."

We have made the quotations above that our readers may perceive by them, to some extent, the scope of the work. The work is a philosophic treatise upon the blood—the fluid which the Bible says is the life of a man, and is, consequently, the most important element of the body. The blood feeds all the tissues of the body, it is the great carrier of oxygen and nutritive elements to the most distant parts of the organism, and from the same parts returns to the lungs and the excreting organs the debris that should be eliminated. While in the discharge of its functions it carries life and renewed vigor wherever it circulates, it some-

times is the bearer of disease and death. But while it is frequently the vehicle of the "seeds of disease," as the poison of malaria inhaled by the lungs, micrococci, bacilli, etc., it itself may become diseased. And if it is diseased, what organ of the body can be healthy in its functions?

The study of the abnormal condition of the blood is really the object of this little work, though it may be supposed to have to do only with the red and white corpuscles, those little bodies which are invisible to the unaided eye, but readily seen by the aid of the microscope, but the welfare of these is so involved with that of the blood generally that there is no affection which does not affect either their form, color, size, number or relative proportions or several of these properties.

This is the first systematic treatise on anemia published in this country. It embodies the results of many years' study of the blood and the disorders consequent upon its imperfect elaboration. It will afford physicians much valuable information, and will enable them to diagnose and understand clearly the nature of no little morbid phenomena that before had seemed very obscure.

A PRACTICAL TREATISE ON OBSTETRICS. Vol. III. (4 vols.), The Pathology of Labor. By A. Charpentier, M. D., Paris. Illustrated with lithographic plates and wood engravings. This is also Vol. III. of the "*Cyclopedia of Obstetrics and Gynecology*" (12 vols.), issued monthly during 1887. Price of the set, \$16.50. New York: William Wood & Co. Cincinnati: Garfield.

This work, as we have stated before, has been pronounced to be the most complete work on obstetrics in any language.

Works on obstetrics have been issued in great numbers during the last few years. Obstetricians more than other specialists have seemed to us to have a penchant to become authors. This is the more singular when the fact is considered that obstetrics, more than almost any of the other departments of medicine, is an art, having less science involved in its practice. There is much, however, collateral to this art that is exceedingly interesting, as conception, generation, menstruation, ovulation, etc., and which is worthy the study of the wisest and most learned.

Dr. Charpentier, the author, makes the following statement in regard to this work: "During the past twenty

years works on obstetrics have been published in such numbers, both in France and abroad, that our classical treatises are no longer exact exponents of the modern science. Seeing that I have acted for two years as head of the Obstetrical Clinic, at the School of Medicine, and as adjunct to the Chairs of Obstetrics held by Profs. Pajot and Depaul, I have necessarily kept abreast of the progress in this science, as well in the theory as in the practice, and my personal experience has been ample enough to allow me to judge of the value of the works which have appeared during this time. My knowledge of the German and English languages has enabled me to read, in the original, the works and monographs published during the last twenty years, and thus to familiarize myself with the opinions of different authors, and to weigh the doctrines emanating from them. My aim, then, has been to write a treatise on obstetrics which, while essentially practical, would give to the practitioner, to the student and to the midwife a sufficient, though condensed knowledge of modern researches, and thus to fill the gaps which exist in our classical treatises."

We stated in our notice of the first volume, and we will again reiterate it, that the work constitutes a faithful and unbiased mirror of the theories and of the practice of the most renowned obstetricians of the world. It is not an exposition of Dr. Charpentier's views and experiences merely, but of those of the obstetricians of every civilized nation who have published their views. A physician who has this work in his library knows that he has the means of informing himself in regard to the most recent views in theory and practice of the most eminent practitioners of the world.

The third volume contains three chapters, which are devoted to the consideration of the pathology of labor and the uses of ergot. The first chapter, occupying from the 3d to the 249th page, treats largely of maternal dystocia. Under this term is included all the causes which may render labor difficult, impossible or dangerous for the mother and child, and which consequently require more or less active interference on the part of the obstetrician. This chapter will be found exceedingly interesting. The cuts are numerous, illustrating the various forms of pelves produced by disease, and exhibiting the different instruments for measuring their size and showing the methods of taking the measurements. Also in this chapter there is treated at length the mechanism of labor in pelvic contractions. The second chapter,

occupying from page 250 to 335, is devoted to the consideration of dystocia due to the fœtus, which may depend upon its annexes, in particular the cord, or on the fœtus itself. The third chapter concludes the volume, beginning at the 336th page.

Although our notice is lengthy as regards the space it occupies, yet it is really brief in affording an outline of the scope of the work. It is certainly the most exhaustive work on obstetrics that has as yet ever been published.

THE VEST POCKET ANATOMIST (*founded upon Gray*). By C. Henri Leonard, A. M., M. D., Professor of the Medical and Surgical Diseases of Women in the Detroit College of Medicine. 13th Revised Edition, Enlarged by Sections on Anatomical Triangles and Spaces, Herniæ, Gynæcological Anatomy and Dissection Hints. Detroit: The Illustrated Medical Journal Co., 1887, cloth, 86 illustrations, 154 pages, post-paid, 75 cents.

This little volume in its former editions is so well known that it is only necessary to confine our notice to this, the *thirteenth* edition, which contains very clear and accurate topographical plates of the venous, arterial and nervous systems, photo-engraved from the English cuts in Gray's Anatomy. This makes the work especially of value to accompany the surgical case of any practitioner that is doing much work in this line, who may wish at his hand a "regional reminder" of the placement of arteries and veins that he may wish to avoid in making his incisions. For this special purpose this little book, since it has the addition of these 86 engravings, is of a good deal of value to the country practitioner, who sometimes does not have the time to return to his office to consult his more pretentious volumes. The "Dissection Hints" show the incisions to be made in post-mortems to advantage.

THE American Medical Editors' Association held its annual meeting and banquet at the Palmer House, Chicago, June 6, 1887. A large increase of membership and the warm interest shown by those present, indicated a degree of prosperity hitherto unknown in the history of the Association. Preparations were made to have a meeting at Washington during the session of the International Congress, in order suitably to entertain medical editors from abroad.

Editorial.

DEFINITIONS OF INSANITY.—The editor of the *Medico-Legal Journal*, believing that the views of prominent alienists and jurists as to definitions of insanity, as well as the real tests of responsibility for acts committed by insane persons, would generally interest his readers, and bring various views into juxtaposition, as well as invite discussion, sent letters of inquiry to members of both professions. Among others whose views were requested is Dr. Philip Zenner, of Cincinnati. Dr. Z. replied as follows:

“It is not easy to get a clear idea of the different forms of insanity from an entire volume. It seems impossible to get it from a few sentences, such as are comprised in an ordinary definition. Definitions of insanity are chiefly called for in medico-legal cases. I believe it would be well to discourage their use. They do not assist in the cause of truth and justice.

“The test of criminal responsibility of the insane, adopted in many States—the ability to discriminate between right and wrong—is, in my opinion, manifestly unjust. The chronic, delusional insane, those with ‘fixed ideas,’ often know full well what is considered by others, and pronounced by the law, to be right and wrong. But they live, as it were, in a strange world of their own; have, possibly, their own standard of morals; and if, at the same time, their acts are the direct results of their delusions, they should be held as irresponsible as those who can not distinguish between right and wrong.

“Yet the discrimination of degrees of responsibility, and the question of disposal of the individual case, are sometimes exceedingly difficult. It occurs to me that the only question which a jury should be called on to decide in a criminal case, is whether the prisoner is sane or insane. But, if found insane, the power of the law should not stop there, but extend to the final disposal of the insane subject. In this disposal various considerations may be of influence, of which I will mention a few.

“In some cases of partial insanity the criminal act really results from the individual’s character and circumstances, and has no relation to insane delusions. Again, in some cases the knowledge of punishment attached to a crime may check such an act, while the knowledge of immunity may

foster it, just as in normal life. But a chief consideration is the welfare of society. This, very properly, leads to the vigorous treatment of ordinary criminals, notwithstanding that many of the worst ones, while not insane, have something pathological in their nervous system, which is the basis of their character—have a bad character congenitally, if I may so speak. This consideration, the welfare of society, should also largely influence our disposal of the insane.

“Such nice discrimination could scarcely, with propriety, be left to a jury, but it should rather be relegated to the discretionary power of the Judge, with the counsel of experienced physicians, to decide according to the form of insanity, the character of the individual, and the circumstances of the case, whether the insane subject should be consigned to an asylum, should sustain certain degrees of punishment, or even be subjected to the same penalty as other criminals for the same offenses.”

STATISTICS OF SUICIDE.—The *Chronicle*, an enterprising journal in New York, has made a very painstaking compilation of statistics relating to suicide, culled from the daily press of America over a period of five years. In this way a large number of cases has been brought together, and although the sources of information are not always the best or the channels through which it flows the most trustworthy, yet the result presents many interesting features, and well repays the compiler's trouble. Among the most striking of the facts brought out is the very obscure influence of the season of the year upon the prevalence of suicide. It would be a curious experiment to poll a constituency of ordinary people for opinions on this point. We must suspect that autumn or winter would commonly be credited with being best adapted to develop and foster suicidal tendencies. In America it would seem that summer enjoys this unenviable pre-eminence. And not only so: the summer months all rank high—the highest in the year; but, actually, the highest of them all is “the flowery month” of June. On merely psychological grounds, it would seem quite unintelligible that suicide should be at its maximum just as spring is making way for summer. The reason must be sought elsewhere—in the organism and its environment; and possibly the circumstance that a very large proportion of the suicides are agriculturists affords a practical explanation. At least,

this is the season of the year, just before harvest, when a farmer is likely to find himself most hardly pressed for money. The demand for money for agricultural purposes, which is so well known in our money market as a regularly occurring feature of that season of the year, bears testimony to the existence of a state of things which, indeed, may be seen by the help of merely *à priori* considerations to lie in the natural and necessary course of events. It is very conceivable that this pressure in a country like agricultural America, where banking facilities, compared with ours, are very limited, may be pronounced enough to affect quite appreciably the suicide record of the agricultural class. This explanation does not seem, however, to be fully adequate, for, giving to it the fullest weight possible, we still are face to face with the anomaly that a special circumstance is made to explain a very general feature of the figures given. It is probable that the truth lies deeper still in the nature of things and men, and must await for its full disclosure the more complete analysis of the relations between mental states and pathological conditions, and again between these latter and the season of the year. In the meantime, these seasonal figures, being among the most reliable, presumably, that our contemporary has put together, are of sufficient interest to warrant reproduction.

Distribution in Seasons of 8,226 American Suicides.

Spring.		Summer.		Autumn.		Winter.	
March... 649	.....	June... 833	.....	Sept... 781	.....	Dec... 627	
April ... 687	.....	July.. 746	.....	Oct... 681	.....	Jan... 538	
May..... 706	.....	Aug... 807	.....	Nov... 600	.. ..	Feb... 571	
Total, 2,042		Total, 2,386		Total, 2,062		Total, 1,736	

Of the suicides brought under review, nearly 6,000 have been classified under causes. The results thus brought out agree more nearly with one's expectations. Insanity, of course, heads the list. Family trouble comes next, while business trouble, dissipation and disappointed love rank almost together for the third place. So far all is commonplace, but the list contains, as would be supposed, some eccentricities. The refusal of a pension might easily suggest suicide to a severely logical mind, but it is passing strange that self-destruction should be chosen as a refuge from assassination, yet two such cases are recorded; while in one instance a source of trouble is assigned so utterly trivial as a *pimple on the nose!* But more striking, upon the whole, are

the results brought out by classifying according to occupations. Strangely enough, farmers contribute by far the largest quota. Possibly the number is not disproportionate to the numerical strength of the farmer class in America—for these proportions are not worked out,—but it is singular to find them outnumbering the saloon-keepers, merchants, laborers and clerks put together. Yet so it is. Among other classes, that of courtesans is sadly and suggestively conspicuous. For the rest, the list, though long and varied—for no condition is free from the occasional temptation to suicide,—contains nothing of special interest or in any way peculiarly noteworthy. The problem of the seasonal variation, however, appears likely to reward careful examination. —*Lancet*, June 18.

INTERNATIONAL CONGRESS OF INEBRIETY.—The Council of the English Society for the Study and Cure of Inebriety has completed the arrangements for an International Congress to be held at Westminster Hall, London, July 5 and 6, 1887. The object of this Congress is to present and discuss the problems of inebriety medically, and from a purely *scientific standpoint* by the best authorities, thus laying the foundation for a broader and more exact study of this subject. At the close of the second day a dinner will be served to the Congress by the Society for the Cure of Inebriety; on the third an excursion and reception will be held at the Dalrymple Home. Papers and addresses are promised from a large number of the most distinguished physicians, of whom the following are well known: Dr. Magnus Huss, of Stockholm; Dr. Moeller, of Brussels; Dr. Baer, of Berlin; Dr. Magnan, of Paris; Dr. Binz, of Bonn; Prof. Marstorf, of Vienna; Drs. Kerr, Drysdale, Richardson, Cameron, Carpenter, Burrows, Bristowe and others, of England; Drs. Parrish, Crothers, Mason, of America; Dr. Fitch, of Halifax; and many others.

IS THERE A SPECIAL GYNECOLOGIST?—This is the heading of an editorial in *Progress*, of Louisville. As we devoted in a recent number of the *News* an editorial to gynecologists, we think the article of *Progress* may be interesting, and, therefore, quote it:

“Prof. W. H. Wathen, of this city, thinks it absurd in any one to set up a pretense of skill in gynecology without

practical experience in the lying-in chamber. In fact, he regards obstetrical practice of the skilfully educated as, in many respects, adequate to the prevention of those conditions which the modern gynæcologist professes to remedy. There can be no doubt of the mischief which exclusive specialism has wrought in the minds of the young men who have, on account of a mistaken judgment, been induced to study medicine solely with the view of entering a limited and special field of practice. There are no special organs of the human economy which may exist independently of the whole body, and therefore no organs exist which may in the presence of disease or injury be treated independently of the state of the general economy. This we fancy is the ground upon which Prof. Wathen professes to stand; and it may be fearlessly maintained as exceedingly strong ground."

A RESULT OF SPECIALISM.—The American Surgical Association met in Washington, D. C., May 11, 12, 13. The President, Dr. Hunter McGuire, of Richmond, Va., made the following expression in his address: "While I believe in the rigid observance of the Code of Ethics of the American Medical Association, and the absolute necessity of its enforcement in that body, there is no need of it in our Association. The only code that we should have is scientific work." He means rather that the only code his Association should have is one that will throw down all bars in the way of making money, and will open the financial field wide open. While he thinks there is an absolute necessity of enforcing the code among the members of the American Medical Association, "*there is no need of it in our Association.*" He seems to think there should be honor among physicians, but not among surgeons. Queer. We have always been of the opinion that the enforcement of honorable conduct was a good thing under all circumstances, when it did not follow voluntarily.

THE AVERAGE INCOME OF THE FAMILY DOCTOR.—The average income of the family doctor in England, according to estimates made by Dr. E. Paget Thurstan in *The Lancet*, is £625 or \$3,225. Deducting the average working expenses and the interest on capital sunk, the average net income is estimated at \$1,775. If there be included all the

physicians having only salaries, as assistants, etc., or having no practice, the average net income is placed at about \$1,000.

An average gross income of \$3,225 is very much beyond that earned by American physicians, if we include the younger men who are still striving to establish a practice. This is the natural result of the fact that we have twice as many doctors proportionately as there are in England. We have to divide the fees.

A GRAND OPPORTUNITY.—The Western physicians have an opportunity this year which does not come twice in a century. By a strange combination of events, the great medical convention of the world is at this time largely dependent for success upon a part of civilization which has not heretofore taken its proper place and claimed its full professional right in the world's advance.

Many names from west of the Alleghenies are favorably known abroad, but Eastern physicians have had the greater advantage in having written more and visited European centers more frequently, until some have seemed to believe that medical progress, like a clam, only grew near salt water.

Meanwhile the medical men of the West have been at work. Societies have been organized and prosper, medical schools have sprung up like Jonah's gourd, state boards of health have set the example for higher requirements, and a medical journal has its home in every Western city of any size. This means progress and organization.

Now it has happened that many of our Eastern brethren have closed their shells. Their fair fame seemed a guarantee to the old world physicians that the Congress would be well cared for at Washington, and that the great cities of the seaboard would unite in providing the welcome which their representatives promised.

It is true that a large number of the best men in the East are active in the work, but many who should have a part in the honorable task are yet keeping aloof. So it is that an opportunity has been given for the West to respond and make good the promise of success.

The President of the Congress is a Western man. The home of the Secretary General is in the West, and the sec-

tions are largely made up of Western men, many of whom have received their degrees from Western colleges.

The prize of full recognition is not hard to obtain. It has crossed the ocean to meet us. To secure it, work must begin now.

The number of papers is by no means complete. Let him who can, get ready. Let all who can, go. It will be many years before you will again see such an assembly of men famous in your profession. It will be long before you can again share the honor of hosts to such guests. The season is the best of the year. Washington is our most beautiful city. Leave your offices and clinics for a while, turn Dobin out to pasture for a fortnight, and let us all go.
—*William Porter in the Weekly Medical Review.*

LACTATED FOOD.—The lactated food of Wells & Richardson, of Burlington, Vt., is a predigested, non-irritating, easily assimilated food indicated in all weak and inflamed conditions of the digestive organs, either in infants or adults. It is composed of lactose (milk-sugar), malto-diastrase, soluble carbo-hydrates, gluten and soluble albuminoids, potassium bicarb., phosphates, sodium chlorides and other salts.

The malto-diastrase is obtained from the finest quality of barley malt without the aid of heat; therefore it retains its full diastasic power uninjured. The soluble carbo-hydrates are transformed starches of the wheat and oat, being rendered soluble by the action of the malto-diastrase. The gluten is from wheat and oat, and the soluble albuminoids are mostly from the barley. These, in connection with the lactose and salts, make a food that is nearer in composition and effect to the normal human milk than any other food before the public.

The manufacturers assure us that over *four hundred* physicians have pronounced this food the best of all foods. These state that they have used it with great advantage in all diseases involving the stomach or intestines. From the character of the statements in regard to it, all who have not tried it should send for a specimen and make a trial of it. The proprietors will send a package of it to any physician, without charge, who will mention that he has heard of it through the CINCINNATI MEDICAL NEWS, and promises that he will make a fair trial of it as soon as possible.

THE CINCINNATI MEDICAL NEWS.

VOL. XX. No. 235.
Old Series.

JULY, 1887.

VOL. XVI. No. 7.
New Series.

Original Contributions.

Sick Headache.

BY PHILIP ZENNER, A.M., M.D., CINCINNATI.

THERE are few diseases which are the source of so much suffering as that which is the subject of this paper. Beginning usually at an early period of life, most frequently about the time of puberty, it returns as an unwelcome visitor for the greater part of the remaining life. Often it recurs with such frequency and severity as to make existence a terrible burden.

Like most diseases which, in themselves, never lead to a fatal issue, its pathology is very obscure. Hughlings Jackson considers it to be of the nature of epilepsy, and to be caused, as he believes to be true of the latter disease, by a discharging lesion in the brain, in this case, in the sensory area. It must be acknowledged there is much in the manifestations of the disease, the manner of recurrence, and the influences which control it, which lends weight to this view. Of late years the most prevalent view of the nature of this disease is that it is caused by changes in the sympathetic nervous system, and that the paroxysms are brought on by a spastic or paralytic condition of the cerebral blood-vessels. When there is a spastic condition the paroxysm is termed spastic, or sympathetic-tonic; and as further indications of irritation of the cervical sympathetic, it is found that on the affected side the face and ear are paler and colder than on the other side, the eye is prominent, the pupil di-

lated, and the salivary secretion is very viscid and much increased in quantity. The paroxysm, with paretic condition of the vessels, is termed angio-paralytic, or neuro-paralytic. The paresis on the part of the cervical sympathetic is further indicated by heat and redness of the face and ear, suffusion of the eye and contraction of the pupil on the affected side.

I have had occasion to examine a large number of cases during the height of the paroxysm, and only rarely, though the headache was distinctly unilateral, have I found decided manifestations of irritation or paresis of the cervical sympathetic. Therefore, I can not but doubt the correctness of this explanation in many cases, though it is still possible that the pain may be due to varying conditions of the circulation within the skull, while there are no external manifestations of changes in the sympathetic nervous system.

Practically the important consideration is that of treatment. What can we do to ameliorate or to cure the disease? We must consider separately treatment for the relief of a paroxysm and that for the improvement or cure of the systemic condition which causes the paroxysms.

In case of a severe paroxysm all sources of irritation should be removed. The patient should be at rest in a darkened, quiet room; if anæmic, should lie down; if hyperæmic, maintain a sitting position. Firm compression of the head or the application of cold sometimes affords considerable relief. In the spastic forms of migraine, with contracted cerebral vessels, the inhalation of nitrite of amyl, or the internal administration of nitro-glycerine, or other remedies which produce dilatation of the blood-vessels, will cause more or less complete relief. In the paralytic forms ergot often acts very admirably. Various other remedies are used whose indications can not be so distinctly given. Quinine, in from five to fifteen grain doses, will often arrest an attack. Many old sufferers with migraine, who have tried almost everything, find greater benefit from this than any other drug. Coffee, or its active ingredients, caffeine and guarana, often relieve lighter paroxysms. Chloride of ammonium, chloral and croton chloral are of more or less service in most cases. Anstie believed that the administration of twenty grains of chloral, the patient at the same time keeping his feet in hot mustard water, and inhaling the steam from the mustard, was the ideal treatment for migraine. Bromide of potash affords relief in some cases, but it is usually

necessary to give very large doses. A new remedy, anti-pyrine, has proved a valuable auxiliary in our treatment of migraine and other forms of headache. One or two doses of ten or fifteen grains, given at the beginning of an attack of sick headache, will often act like a charm in cutting it short. A still newer remedy, antifebrine, is said to act equally well.

In some very severe attacks hypodermics of morphia may be called for to procure relief, and even these may afford but very little benefit.

In our efforts to prevent the attacks of sick headaches, or lessen their frequency and severity, we should attempt to remove all the causes which have any influence in their production. In some instances stomach disorders, diseases of the womb or the like, either directly or indirectly, occasion their development. Wherever diseases of this character exist, they should, if possible, be removed.

Special remedies are sometimes used with the idea of preventing future attacks. Cannabis indica is a favorite with some physicians. Its use for a long time is said to have a very decided effect in some cases. I have, myself, very rarely resorted to any specific medication in these cases. When I did so it was to administer the bromides, and only at such times when the headaches appeared to occur with unusual frequency or severity. Periods of this kind, of longer or shorter duration, are not rare occurrences to those suffering with migraine. I have almost invariably found that ten to fifteen grains of bromide of potash, given three times a day at such times, would be productive of much benefit.

Probably the most important consideration in cases of sick headache is that it occurs chiefly in those with a neurotic taint, where there is a history of headache or other nervous diseases in the family, and where the individual is of a nervous temperament and predisposed to nervous disease. Therefore, the important point in treatment is the toning up of the nervous system. Many such patients are anemic, debilitated women, and demand iron or other tonic medication, and a tonic regimen in every way. Hydrotherapy, sea-baths, a trip to the mountains, will often prove of great benefit. Headaches are often brought on, or greatly aggravated by the worry or excitement of daily life, sources of ill which can not be removed; but all such trouble must be avoided as far as possible.

When the disease has been of many years' standing, all our efforts will often avail but little, though the disease is likely to disappear after the climacteric period. It is in the young, when the disease is recent, that we may hope to accomplish most good. In such cases we must attempt to cure the disease before the habit, if I may so speak, has been established. To do this we must not only try to cut short each attack, but by proper habits of life, careful education, tonic medication, etc., so far as possible, eradicate the neurotic basis of the disease.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS, from the French, by Dr. Illowy,
Cincinnati, Ohio.

THE USE OF ELECTRICITY TO RESTORE THE MILK SECRETION. BY DR. PIERRON.

OF all the applications of electricity in medicine the one referred to in the caption of this article is undoubtedly one of the most interesting to gynecologists. For what physician has not at times vainly endeavored to restore the mammary to its function, to augment or to develop the lacteal secretion which may have disappeared, or which may be insufficient or may not yet have appeared, despite the general good health of the delivered woman?

I do not know whether this remedy has been discovered before me. What I affirm is that I was ignorant of it before 1884, at which epoch some theoretic consideration induced me to make use of it.

The current used is the intermittent current of the volta-faradic apparatus of Gæffe.

In 1884 I attended a lady who ardently desired to nurse her infant; despite her excellent health, excellent hygienic surroundings, her breast would not furnish sufficient milk, and all the means and remedies I could advise proved unavailing. I was very much vexed that I could not allow her to continue nursing the infant. It occurred to me at this time that as the intermittent current was a stimulant for the organic functions, it might prove serviceable in this instance. I tried it and succeeded beyond my expectations; the

breasts enlarged and furnished an abundance of milk of excellent quality.

Since then I have employed this remedy exclusively for the purpose indicated.

Lately a lady, primipara, weaned her infant ; after fifteen days she observed that the infant began to lose, and that it would take nothing but the breast. The secretion of milk was entirely arrested, and her menses had returned. After four sittings of electrization the breasts became enlarged and developed, as during the nursing period, and secreted an abundance of excellent milk.

Since two months this renewed lactative continues to the satisfaction of the nurse.

I believe I may assert that in a woman lately confined, and in whom the milk does not appear, the secretion can be brought on by means of electricity. More than that, I believe that it can be brought on even in a virgin ; authenticated facts are recorded in medical literature showing that young girls, and even grandmothers (who are always supposed to be in the menopause), have had the milk secretion brought on by the suction of the infant.

The method employed by me consists in the application of the negative pole of the apparatus mentioned under the breast ; the negative pole is represented by a spherical copper plate, the positive pole is armed with a copper ball, which is found in every apparatus. At first the positive pole is placed in the region of the apex of the breast, so as to attain a gliding of the skin, which causes the orifices of the gland to be at once stimulated. Then the pole is promenaded over the whole extent of the gland, from the centre to the periphery, the positive pole displacing at the same time the negative pole to which we converge ; this procedure is repeated on the other breast.

The current should be sufficiently feeble not to provoke pain, which in this region is very intense. The energy of the voltaic current is then increased, and the procedure resumed on both breasts ; the whole sitting should not last longer than about ten minutes. The sitting is resumed the next day and repeated the following days until milk is obtained, which usually happens after four sittings.

We must not despair of bringing it on even at the end of eight sittings.—*Journal de Medicine de Paris*, Feb., 1887.

THE TREATMENT OF GOITRE.

Coghill treated goitre with injections of ergotine; Dr. Bauvens, of Alost, without being cognizant of Coghill's article on this subject, employed the same means. With a Pravaz syringe he injected 1 gramme of the following solution:

Ergotine,	. . . . .	1 grm.
Aq. distill.		
Glycerine aa,	. . . . .	7 grms.

As the results with this solution were nil, he increased the quantity of ergotine contained therein to 3 grms. With this a slight improvement was noted. He now made four injections, each at an interval of fifteen days, with the following solution:

Ergotine,	. . . . .	5 grms.
Aq. distill.		
Glycerine aa,	. . . . .	7 grms.

The injection was painful, and some tumefaction followed; but at the end of three weeks the revolution of the tumor was complete.

Four injections sufficed to effect the disappearance of a goitre which for fifteen years had resisted all means and methods of treatment.

Dr. Bauvens insists that the injections must be pushed into the parenchyma, and not into the subcutaneous tissue alone.—(*Ibid.*)

PILLS FOR GLYCOSURIA OF ARTHRITIC ORIGIN.

BY P. VIZIER.

Read before the Society "de Medicine Pratique."

Dr. Martineau presented to the "Société de Therapeutique" a note relative to the cure of glycosuria of arthritic origin by means of carbonate of lithine and arseniate of soda dissolved in gaseous water.

As the gaseous water can not be considered as a medication in this new treatment, we believe it advantageous to replace it by pills, the use of which is more practical. We therefore submit the following formula:

Carbonate of lithine,	. . . . .	0.10 centigrm.
Arseniate of soda,	. . . . .	0.003 milligr.
Extract of gentian	. . . . .	0.05 centigrm.
M. Make 1 pill.		

One pill to be taken morning and evening for several months. It is necessary to continue the remedy for some time after the disappearance of the sugar.

This treatment recommended by Dr. Martineau is based upon the following clinical experience: In the space of twelve years Dr. M. treated seventy diabetics, and he affirms to have cured sixty-seven without the enforcement of any very severe regimen. His sole remedy consisted in dissolving in the upper bowl of a Briet apparatus 0.20 centigramme of carbonate of lithine, adding a tablespoonful of a solution of 20 centigrammes of arseniate of soda to 500 grammes of distilled water, and to have the patient drink this litre of gaseous water through the day or during the meals.

A tablespoonful of the above mentioned arseniated solution contains 6 milligrammes of arseniate of soda. A pill composed of 20 centigrammes of carbonate of lithine and 6 milligrammes of arseniate of soda would represent the exact dose to be taken per day. We have simply divided it into two, so as not to fatigue the stomach and to facilitate absorption.

Many physicians will undoubtedly try this method of treatment. They will find it advantageous to prescribe these pills to patients who are not much at home, or have few conveniences there.—(*Ibid*, April, 1887.)

• OINTMENT FOR HEMORRHOIDS.

Dr. Wimpelberg recommends the following ointment:

Lanoline,	. . . . .	30 grms.
Persulph Ferri,	. . . . .	0 grms 60.

M. ft. Ungt. Apply morning and evening.—(*Ibid*.)

FENWICK ON CARCINOMA OF THE PROSTATE.—The case was one of carcinoma of the right lobe of the prostate in a patient aged fifty-one. The first symptom, which was observed some weeks before death, was some difficulty of defecation. A large tumor of the prostate was found projecting into and partially obstructing the rectum. It rapidly increased, ulcerated and fungated. The urethra and bladder were uninvaded, but the catheter had to be used. Lumbar colotomy had to be performed on account of obstruction of the bowels, to the great relief of the patient.—*Provincial Med. Jour.*

Selections.

Syphilis of the Nervous System and Its Treatment.

BY LANDON CARTER GRAY, M. D.,

Professor of Mental and Nervous Diseases in the New York Polyclinic.

THE task which lies before me to-night is no easy one. It is the task of explaining, within a short space of time, the symptoms that may arise from a disease which affects the whole of the complicated machinery of the brain, the spinal cord, and the peripheral nerves. I can not hope to do more than outline the subject. To treat it exhaustively would require a book, to which this paper might serve as an introduction.

Some idea of medical interest in the matter may be obtained from a somewhat curious comparison. Prof. Max Müller, the well-known philologist, informs us that the whole of the Sanscrit literature, running, as he expresses it, "like a high mountain-path of literature through the whole history of India, and extending over a period of three or four thousand years, is contained in about 10,000 manuscripts"—more, the same authority estimates, than the whole classical literature of Greece and Italy put together. I have been able to count up some 500 different articles that have been written on the subject of syphilis in the last thirty years, and there are probably many more. This is one-twentieth of the whole Sanscrit literature, or of the combined classical literature of Italy and Greece; and, therefore, in order that the literature of this one subject should equal these great national literatures, it would only take the time of about 600 years, or one-seventh to one-fifth of the time of the Sanscrit writings.

Syphilis of the nervous system varies essentially from the syphilis about which the great syphilographers of France, England and America have written so voluminously, because the phenomena of the disease which they described have been almost entirely confined to the cutaneous surface of the body. When this malady, however, affects the nervous centres and their peripheral appendages, it usually, I am prepared to say, has not been marked in its cutaneous manifestations. Most of the cases I have had the fortune to

see had this peculiarity. At the outset, therefore, we are met with one great difficulty, which does not bar the way of the dermatologist—we are deprived of the diagnostic guidance of a group of symptoms which have been carefully studied for many years; and in their place no one has as yet suggested an equally pathognomonic group of nervous symptoms. Unguided by the tell-tale signs upon the exterior of the body, the history of the initial lesion may, as is probably well known to most of you, become very obscure. The primary sore being usually very slight it may very easily be overlooked, even by those who are in search of it. The infection may come through the husband to the wife, innocently, too, so far as the latter is concerned. Not long ago I heard a lady telling some friends how she had been afflicted with an obstinate headache and subsequent inflammation of the eyes. Now, it so happened that this lady's husband had died a short while before of intracranial syphilis, and on going to her attending physician, I found that he was entirely ignorant of the etiology of his patient's symptoms. The infection may also come through a surgical operation, as is probably known to you; for I suppose that there are very few communities of any size in which physicians can not be found who have infected themselves in this manner. Or the infection may come through a lesion innocently acquired about the buccal cavity, and even, perhaps, through articles of clothing. Infection through heredity is of no small account. For these different reasons, it may readily occur that many individuals may be entirely unaware of the disease of which they are the bearers. Add to these sources of error the tendency to concealment which so often actuates patients, glandular indurations, exostosis, in hereditary syphilis the peculiar teeth described by Hutchinson, and the record of many miscarriages and dead births. All these latter incidents may greatly assist us when they are present, which, unfortunately, they are not in a number of cases of nervous syphilis.

At the outset, it should be clearly understood that syphilis may affect the whole of the nervous system—the brain, spinal cord, peripheral nerves, membranes, sheaths, and the bony structures surrounding the nervous tissues, and the blood-vessels within the nervous tissues. It may assume the form of a diffuse infiltration, or it may be limited to a gumma, or it may be confined to the arteries, or there may be diffuse infiltrations, gummata, and arterial lesions in one

subject. This diffuse infiltration takes its departure from the capillaries, and consists of numbers of round cells spread throughout surrounding tissues. These are the round cells of the shape of those formations to which Virchow has given the name of granulation tumors, and for which other German pathologists have suggested the name of infectious-granulation-tumors, to which class belong the tubercular formations, lupus, lepra, actinomycosis, and glanders. The cellular character and behavior of each one of these different species are, as is well known, different, as is also their particular location within the body; and two of the salient characteristics of the cells thrown out in a syphilitic infiltration are: that they have scarcely any tendency to suppuration, undergoing a retrogressive-metamorphosis by non-suppurative transformations, and that the individual cells are endowed with extraordinarily long-lived vitality. These cells may often lie among the normal tissues for long periods of time and not do any really structural damage. On the other hand, they may set up truly destructive processes that may injure the component parts of a tissue as much as any other destructive process whatsoever.

The arterial lesions were first described in 1874, by Dr. Heubner, of Leipsic, whose observations have given rise to further and often contradictory investigations by Köster, Friedländer, Baumgarten, Rumpf, and many others. Heubner advanced the view that in syphilitic vessels the endarteritis was peculiar in its place of origin, which was in the vesselless tissue that lies between the *membrana fenestrata* and the endothelium. Normally the *membrana fenestrata* and the endothelium lie so close to one another that no intervening tissue can be seen microscopically. In syphilitic endarteritis, however, Heubner maintains, they are widely separated by a new cellular formation, which consists of a proliferation of endothelial cells, to which, after a certain time, there are added numbers of round cells, as in the ordinary granulation tumors. Heubner very minutely and carefully describes the difference in size of the endothelial cells in health and disease, as well as how to obtain an endothelium that has not been bruised by the ordinary act of cutting the vessel, and it is difficult for any one who reads his painstaking brochure to refuse credence to his plea for this peculiar anatomical site of syphilitic endarteritis, nor is it easy to resist the wish that it were true, as it would constitute so invaluable a guide in dubious cases. But in the

thirteen years that have elapsed since Heubner first made his views public, no one has fully confirmed him. Köster, Friedländer, Baumgarten, Huber, Schottelius, Marchand, Rumpf, deny that the endarteritic process starts in the vesselless structure between the *membrana fenestrata* and the endothelium, or that it consists at first of an endothelial proliferation. They maintain, on the contrary, that the endarteritis is due to the outpouring of round cells from the minute nutritive vessels of the vessels themselves—from the *vasa vasorum*—contained in the outer coats, and that the endothelial proliferation is only a part of the general cellular disturbance that takes place in consequence of this outpouring of round cells. The question needs further investigation. But, however it may be decided, there is no diversity of opinion as to the results which follow upon the endarteritis. The vessels may become narrowed in their lumen by the thickening inward of the fenestrated membrane and the intima. They may become entirely occluded from the same cause. The inner surface of the intima may become roughened or altered in its chemical constitution, and a thrombus may form, which may, in its turn, give rise to an embolus. It may even happen, rarely however, that minute aneurisms may be formed from the wasting of the muscular coat of the vessel, and occasionally there may be a hemorrhage. In other words, a syphilitic infiltration may set up an endarteritis which usually leads to a narrowing of the canal of the vessels, or to an occlusion of it, but which may occasionally lead to thrombi, emboli, aneurism, and hemorrhages.

The prevailing tendency of thought among modern pathologists has naturally lead to an endeavor to trace syphilis to a microorganism. As is usual in researches of this kind, our German friends have led the van. As far back as 1869 Hallier thought that he had detected peculiar microbes in the blood corpuscles, and Lustdorfer described syphilitic bodies in the blood. These statements do not seem, however, to have been verified. Klebs, in 1879, Aufrecht, in 1881, and Birch-Hirschfeld, in 1882, described microorganisms which they would have us regard as the cause of the phenomena of syphilis. But the investigations of Lustgarten and Doutrelepon since 1884 have been more precise than those of their predecessors, have been largely confirmed, and have, therefore, attracted far more attention. These gentlemen have described slender bacilli, like straight or somewhat curved rods of about the size of the tubercular

bacilli, and they are found singly or in groups in cells. They bear spores, which appear as clear, oval, glittering spots. They are colorable by a method described by Lustgarten. A most energetic discussion of these bacilli, their relations to syphilis and their differentiation from other bacilli, has been and is still going on in France and Germany. The mere catalogue of the disputants will indicate the interest that is felt in the subject—Cornil, Giacomini, Disse and Taguchi (two Japanese medical men writing in German), Klemperer, Köbner, Matterstock, Rumpf, Gottstein, Leloir, Weigert, Baumgarten, Tavel, Alvarez, Eve, Longuard. As a result, it may be stated, that the question is not by any manner of means yet decided; that the bacilli described by Lustgarten have been found by many in syphilitic individuals; that bacilli, similar in some respects to those of Lustgarten, are found in normal smegma and the secretions of the genital organs; that the bacilli of Lustgarten and those of the smegma and the genital secretions differ from one another distinctly in several particulars; that there are probably several bacilli in syphilis, two varieties being described by Rumpf. The bacilli of Lustgarten have been found in all stages of syphilis and in syphilitic alterations in many different tissues, and nothing like them has been found in non-syphilitic individuals, except in the smegma or the genital secretions, and even here there are alleged points of difference: hence it would certainly seem as if Lustgarten's bacilli bore some relation to syphilis. No one has at yet succeeded in obtaining any pure cultures of these bacilli, and this test is therefore lacking.

So much do we know of the pathology of syphilis.

These diffuse infiltrations, these gummata, these arterial lesions, may, as must be evident to all of you, cause symptoms that are coextensive with the symptoms of derangement of any part of the nervous system. All the recognized mental and nervous disorders may have a syphilitic basis, and in the case of any one of them it simply becomes a question as to whether a history of the infection is obtainable. So far as is known, it is not possible to say of any nervous or mental disorder that it may not have a syphilitic causation; and if we may draw conclusions from the nervous and mental disorders of recognized syphilitic causation, we should say that the prognosis of very few would be materially altered by such etiology. But over and above the well-recognized forms of nervous and mental

disease, there are certain groups of symptoms which may fairly be regarded as indicative of specific infection, although the proof may not be greater than that to which the lawyers give the name of "prima facie"—i. e., proof amounting to a presumption, which may, however, be rebutted by adequate testimony to the contrary. These symptom-groups, if I may be allowed to formulate from my own experience, are as follows:

1. Quasi-periodical cephalalgia of a peculiar kind.
2. Hemiplegia under forty years of age, with or without preceding cephalalgia of the aforesaid type.
3. Cephalalgia followed by hemiplegia, which bear a singular relationship to one another in that the cephalalgia ceases immediately upon the supervention of the hemiplegia, and does not recur.
4. Convulsions in the adult, which have not been preceded by convulsions in infancy, and are not of traumatic or nephritic origin, or due to pregnancy, or in an individual subject to migraine.
5. Symptoms indicative of a lesion at the base of the brain.
6. A comatose condition extending over days or weeks, not traumatic, meningitic, diabetic, nephritic, or from typhoid fever.
7. Tabes dorsalis.
8. General paresis.
9. Spinal lesions in a subject who has had intracranial syphilis.

1. *Quasi-periodical cephalalgia of a peculiar kind.* One expression of the quasi-periodicity of syphilitic cephalalgia that is well known to the profession is the nocturnal recurrence. But this characteristic may be other than nightly. I have known the headache to recur repeatedly at a certain time of the day, usually in the afternoon. What is very misleading, too, in the way of differentiation of malaria is that this cephalalgia may yield readily, although temporarily, to large doses of quinine. This quasi-periodical form of neuralgia may be accompanied by an obstinate insomnia, and by considerable mental irritability, both insomnia and irritability bearing no adequate proportion to the amount of pain; when the latter signs are present, they are of considerable diagnostic importance, because the cephalalgia of brain tumor or nephritis is not usually accompanied by them. [*To be Continued.*]

Original Memoir.

UTILITY OF CARNRICK'S SOLUBLE FOOD.

IN July last there came under my care a lady suffering from parenchymatous rheumatic nephritis. The attack was so acute as to lead to the suspicion of variola, shivering, frequent and terrible lumbar pains, vomiting, but on the third day occurred an œdema, which became general, the urine being examined, removed every doubt as to the diagnosis. In quantity half a litre in twenty-four hours; reaction acid; specific gravity 10.35; reddish brown color on account of the presence of blood. Tested for albumen it became a solid brown mass, almost black. The microscope revealed a great quantity of renal epithelium, numerous blood corpuscles, both red and white, etc. The patient was threatened with pulmonary œdema, an obstinate vomiting of mucus and acid rendered impossible the administration of any remedy to overcome the constipation afflicting the patient from the first, and which prevented any possibility, by the intestinal tract, of compensating for the insufficiency of alimentation. Perspiration was induced, cups were applied to the lumbar region, attempts were made to administer milk; first pure, then deprived of butter by beating, and seasoned with salt or with Carlsbad water, but all were abandoned on account of distressing gastric symptoms being aggravated in the most extraordinary manner. Not knowing where to turn for a dietetic and curative method, it occurred to me that when sick infants were afflicted with gastro-enteritis of the gravest nature, I had always used the Carnrick Soluble Food with the greatest success. I therefore resolved to try it in this instance. I had a teaspoonful boiled a few moments in a glass of water and gave it hot to my patient, who supported it exceedingly well. I repeated the potion after a few hours. In short, nourished with this food alone and treated, with a few subcutaneous injections of hydrochlorate of pilocarpine, the gastric intolerance diminished, the tongue became clean, the breath less offensive, the quantity of albumen contained in the urine being less, morphologic elements disappeared, phosphites and chlorides reappeared, and the patient made good recovery, not abandoning, however, for two weeks more, soluble food (*la sua farina alimentare*.)

The same tolerance for this nutriment was afterward

noted in two other cases of nephritis when milk could not be retained. I also attempted the administration of this food in two cases of ulcer of the stomach, but with less happy results, though the tolerance was better than for milk, especially with the addition of a strong infusion of coca or a few centigrammes of hydrochlorate of cocaine.

Another female patient afflicted with carcinoma of the pylorus, and for whom the question of alimentation was a most serious one, as she tolerated neither milk nor broth, nor extract of meat, nor peptones, supported very well the soluble food cooked in water, to which was added a little diluted spirit of cider.

In conclusion, I believe that of all the special foods which are more or less highly praised and introduced to our notice, this Carnrick Food merits the preference.—*Dr. Malacrida, in Gazette Degli Ospitale, Milan, 1886.*

Association of American Physicians.

Second Annual Meeting, held in the Army Medical Museum Building, Washington.

O BSTRUCTIVE SAFETY-VALVE ACTION IN THE HEART, AND DIRECT FUNCTIONAL MURMURS.

In a previous paper on malignant endocarditis the author had dwelt upon the significance of mitral direct presystolic murmurs, which were proven by the autopsy to be unconnected with any lesion of the mitral orifice. The lesions were those of intense aortic regurgitation. He had attributed the murmurs to the recoil of the blood upon the mitral leaflets holding them tense against the stream of blood coming from the auricle. In the opinion of the late Dr. Flint, direct functional mitral murmurs were limited to a small number of cases of aortic regurgitation, but the author thought that the functional mitral murmurs were not so rare. Obstructive functional murmurs are common in aortic regurgitation.

Pulmonary systolic murmurs are more frequent than any other form of cardiac murmurs. In examining one hundred consecutive cases, he had found in sixty-two, systolic, pulmonary artery murmurs. In these the murmurs were present during tranquil breathing or during respiration in

such a way as to produce changes in the pulmonary circulation. If account is taken of the bruits heard in this region, the proportion becomes greater. The clearness with which these murmurs are heard depends upon the proximity of the artery, the thinness of the chest walls, the nature of the surroundings, and finally the proximity of the main trunk to the capillary distribution. Systolic pulmonary murmurs can be developed in the majority of healthy individuals, if we exclude those with thick chest walls and those who are not intelligent enough to modify their breathing as directed. The author held that such a murmur was a dynamic, obstructive valvular murmur, and is produced by the effect of changes of blood pressure upon the semilunar valves. A certain degree of pressure in the artery must tend to prevent the opening of the valve. This causes a slanting position of the valves, and a narrowing of the orifice, with the production of a sonorous whirl. The fact that such murmurs are not more frequently developed at the aortic orifice is due to the greater power of the ventricle and the wider distribution of the systemic circulation. There are, however, cases in which increased arterial tension is expressed not only by accentuation of the aortic second sound, but by an aortic systolic murmur. He had heard it in atheroma, and in Bright's disease, where there was no marked anæmia. Pulmonary artery murmur, as heard in ordinary breathing, is confined to the expiratory act and is broadest at the beginning of the act. The murmur is sometimes only heard with the first beat that occurs with expiration. In order to further develop this murmur, it is only necessary to arrest respiration. It is better to stop breathing during expiration, especially at the end of normal expiration. A full expiration makes the murmur louder. At the end of inspiration it is more difficult to develop the murmur, for several reasons: 1. Because it requires entire arrest of respiration to produce engorgement of the main trunk; 2. Because prolonged inspiratory effort is accompanied by a continued hum of the intercostal muscles; 3. Because the expansion of the lungs interferes with the transmission of any murmur that may be present. A slight murmur is frequently heard in inspiration if the arrest of breathing is pushed fast enough. The speaker asked, Are we not justified in assuming that there is a safety-valve action in this attitude of the pulmonary valve, which together with the leakage at the tricuspid orifice, tends to prevent engorgement of the lungs by

the retardation of the flow of blood in the systemic veins, so that continued for a time it does no harm? In reference to the murmurs of anæmia, the author thought that they were due to some disturbance of the apparatus. In this condition there is a marked reduction in the quantity of blood; the valves require a certain amount of expansion of the vessels in order to allow them to apply themselves to the walls. Venous hums and basic murmurs he thought to be of valvular origin.

Dr. A. L. Loomis, of New York, remarked that we should recognize that murmurs within the heart cavities are due to many different causes. The obstructive mitral murmurs referred to, were, he thought, of frequent occurrence in connection with aortic diseases where there is dilatation and feebleness of heart power, but on autopsy he had always found such changes in the mitral valves as seemed to account satisfactorily for the murmurs heard. He had heard the murmurs so readily produced during respiration, but where these murmurs have been persistent, he had always found conditions of anæmia and failure of the right heart. It seemed to him that the explanation is either hæmic or failure of heart power. We shall as we study the cases more, find that they are due not so much to changes in the valvular orifices as to changes in the heart cavity and in the heart walls. Murmurs have come to be of very little pathological significance to him unless there are other changes associated with them. The worst cases of heart disease he had met with have had the simplest and least distinct heart murmurs.

Dr. E. T. Bruen, of Philadelphia, reported a case of severe anæmia in which there was great relaxation of the muscular system; so much so that as the arm hung out of the bed, there was a venous pulse at the back of the wrist. This was attributed to relaxation of the capillary vessels to such an extent as to permit the systolic impulse of the left ventricle to force the blood through the capillaries into the veins. In this case there were murmurs at each of the valves of the heart. As the anæmia improved and the crisis of the blood was restored, the venous pulse disappeared and the murmurs gradually lessened and the man has now no more murmur whatever.

Dr. F. P. Kinnicut, of New York, said that it has been claimed by certain observers that pulmonary systolic murmurs are transmitted from the mitral valve into the auricular

appendage. The condition required that this may occur is said to be dilatation of the appendage causing it to approach the chest wall. In some anatomical examinations made a few years ago he found that in the normal condition the auricular appendage was concealed beneath the pulmonary artery, and when fully dilated its tip only could be seen beyond the edge of the artery. It was even then one and a half inches from the internal surface of the chest.

Dr. F. C. Shattuck, of Boston, remarked that when auscultation was first introduced all cardiac murmurs were considered of bad omen. It was then discovered that many systolic murmurs were practically of no importance. We are now finding out that all diastolic murmurs are not of evil import, and that they may be transitory and functional. A murmur by itself is next to nothing, there must be something beside the murmur to make it of much importance.

Dr. Samuel C. Chew, of Baltimore, said with reference to the diagnosis between aortic regurgitant and mitral direct murmurs, that the diagnosis can usually be made by attention to the following points: An aortic diastolic murmur although it may be intense at the apex, becomes manifestly louder as we reach the right side of the sternum in the second intercostal space. It will then occupy the whole diastole. If the murmur is mitral in origin it generally will be also heard in the scapular region. The aortic murmur is not apt to be heard in the latter situation.

Dr. Beverly Robinson, of New York, had occasionally found in acute strain of the heart, murmurs which unquestionably had nothing to do with organic changes in the heart, and can not be explained as due to any special modification in the blood. The murmurs seem to be due to more or less acute dilatation or obstruction of the mitral orifice.

Dr. Israel T. Dana, of Portland, Me., had under observation two sisters. The mother died of organic heart disease. Both of these sisters have had a mitral regurgitant murmur. In the older sister the murmur after remaining five or six years disappeared. It remained absent for one or two years and then returned, and has continued for the past two or three years. In the second case, the murmur after having been present five or six years disappeared, and has since remained absent. He asked if it were possible that a murmur connected with organic heart disease should disappear with improvement of the health and reappear when the health again fails?

Dr. Wood, of Philadelphia, read a paper on

THE ANTIPYRETIC TREATMENT OF FEVER

He had prepared certain propositions which he read, and then gave what he thought to be the proof of their correctness.

First. Fever is a disturbance of calorification in which, through the influence of the nervous system, heat dissipation and heat production are both affected. If there be a fever which is produced by the direct action of a poison, independently of the nervous system, we have at present no proof of its existence. In his experiments the agent used to produce the fever has been the pyrogenic principle found in ordinary commercial pepsin.

Second. Heat production is regulated by a nervous apparatus, our knowledge of which is still imperfect. There is certainly an inhibitory center which depresses or controls the production of heat. It probably does this by acting upon the trophic cells of the gray matter of the spinal cord. It is possible, also, that there is a center which, when excited, increases tissue change, but its existence has not yet been proven. The speaker then gave a résumé of the experiments which he had performed, which, in his opinion, proved the truth of the above proposition.

Third. Heat dissipation is regulated through the vaso-motor system, so that vaso-motor paralysis is followed by an enormous loss of animal heat, and under unfavorable circumstances by death from cold. If section of the cord is made in such a way as to get vaso-motor paralysis without destruction of the respiratory centers, the heat dissipation rises enormously. If the animal is kept in a temperature of 50° or 60° it dies in a few hours of progressive loss of heat. If kept in a warm chamber it lives for days. The cause of the rapid heat dissipation is the opening of the blood-vessels of the surface of the body.

When these remarks are applied to a study of antipyretics, it is seen that drugs may lower bodily temperature in health or in fever by increasing heat dissipation. In this way act all agencies which cause vaso-motor paralysis. Antipyretics acting in this way may be called false antipyretics. Then it is conceivable that there may be drugs which act on heat production through the inhibitory nerve apparatus, of which mention has been made. Such drugs may for convenience be called true antipyretics. *Aconite veratrum viride* and

drugs of that class belong to the false antipyretics. Whether or not there are any true antipyretics has been a question which we have been unable to answer. With regard to antipyrin, certain experiments made in the University of Pennsylvania seem to give some positive results. Care must be exercised in these experiments not to confound a normal defervescence with the action of the drugs administered. In the dog the use of antipyrin diminishes both heat production and heat dissipation, the former being diminished more than the latter. It is probable that heat production is primarily affected. The question arises whether this result is due to an effect on the circulation? He had found that antipyrin had no effect upon the circulation. The blood pressure was uninfluenced by its administration. He therefore concluded that the action of antipyrin upon the bodily heat was entirely independent of any action upon the circulation, and the probabilities are, of course, that it acts through the nervous system. Beyond this our present knowledge does not extend.

Dr. Francis Minot, of Boston, read a paper on

THE TREATMENT OF TYPHOID FEVER BY ANTIPYRIN AND
THALLIN.

The paper was based on the observation of twenty-four cases treated in the Massachusetts General Hospital, the object of the study being to ascertain the proper dose of the drugs; their general and specific effects upon the patients; the results from their continued use as compared with those from their occasional employment; any unfavorable results; and the general effect of antipyrin and thallin upon the course of the disease.

The following conclusions were reached: 1. Both antipyrin and thallin have a remarkable power of reducing the temperature in typhoid fever. 2. In no case was the use of these refrigerants apparently followed by any unfavorable effect upon the course of the disease. 3. The general condition of the patient was more comfortable after taking antipyrin and thallin, which were often followed by sleep. 4. The refrigerant medication by antipyrin and thallin appears to have no specific or decided effect upon the course or issue of typhoid fever. It often contributes much to the patient's comfort, perhaps indirectly promotes his safety. 5. The effect of antipyrin and thallin in promptly lowering the temperature shows that the danger in typhoid fever does not

consist in high temperature alone, and that the latter is rather an index of the violence of the abnormal condition which we call fever, though, perhaps, adding somewhat to the danger. 6. By the internal use of antipyrin and thallin, all the effects which are claimed for the treatment of typhoid fever by the cold bath are readily obtained without the trouble and inconvenience of the latter method, and without exposing the patient to the dangers of exhaustion and shock, consequent on the fatigue of removal from bed. 7. These remedies may be given without danger to the youngest patients in suitable doses, and indeed, their beneficial effects are more decided and the unfavorable consequences are less observable than with adults.

Dr. I. E. Atkinson, of Baltimore, said that, as regards the relative merits of antipyrin, and antefebrein, he thought that the tendency to chilling after the use of thallin is decidedly greater than after the use of antipyrin, while the latter is more apt to produce nausea and vomiting. He disagreed with the statement that the use of these drugs can take the place of the external application of cold water. Although with antipyretics we can reduce the temperature at pleasure, yet the duration of the case is not lessened, and in some cases it has been thought to have been prolonged.

Dr. George L. Peabody, of New York, had found that a certain proportion of cases which do not bear the cold bath will bear the use of antipyretic drugs, while on the other hand, the bath may be used in a certain number of cases in which antipyretics can not be applied. From clinical experience he was convinced that the cold bath accomplishes more than the simple reduction of temperature. Its soothing effect upon the nervous system is greater than that accomplished by the reduction of temperature by antipyretic drugs. Another important matter is, that since the introduction of these methods of antipyresis, the number of relapses seem to be greater and more fatal.

Dr. Wm. M. Welch said that there is comparatively little evidence that the grave symptoms of fever are referable to the elevation of temperature. There is no doubt that temperatures of 110° to 113° produce serious symptoms, but whether or not ordinary temperatures of 105° to 107° exert any serious action on the body, is a question which is certainly unsettled. It has been shown that rabbits can be kept in a box with a continuous rectal temperature of 107° for at least two weeks, provided the precaution is taken to keep

the box well ventilated and the animals supplied with moist food. Patients may have a perfectly clear brain, and no grave symptoms, with a temperature of 106° or 107° . On the other hand, there are severe and fatal cases of typhoid fever in which the temperature has never registered a great height. While in most cases there is a certain proportion between the height of the temperature and the severity of the disease, yet there are certain cases where this proportion does not exist.

Dr. William Pepper said that the action of these drugs seems to be purely through the nervous system. He had seen no effect upon the circulation, upon the respiration, or upon the secretions save that of the skin. Some of his observations have been of interest with reference to the relative value of the external use of cold water and the internal use of antipyretics. In the sudden acute pneumonia of children with a temperature of 106° or 107° with initial convulsions, where the prompt and repeated use of cold baths has been without gratifying results, full doses of either of these antipyretics have produced a remarkably successful effect. As to the ability of these agents to replace cold baths under all circumstances, the evidence is not adequate. In the sudden hyper-pyrexia occurring in the course of rheumatism, he was not prepared to accept the view that these drugs are capable of replacing the cold bath. In these cases we have direct evidence that the high temperature is the direct cause of the symptoms, at least of the severe nervous symptoms.

Dr. George B. Shattuck had used both antipyrin and antifebrin largely, and it seemed to him that antifebrin offers all the advantages of antipyrin without its disadvantages. It has none of the disadvantages which belong to thallin. Three or four grains of antifebrin accomplish the same results as are produced by a larger dose of the other drugs. With reference to the point suggested by Dr. Welch, he said that whether pyrexia is or is not a dangerous feature of the disease, we find clinically that where a patient has high fever, is irritable and uncomfortable, the administration of one of these antipyretics or the external use of cold water produces a tranquil and refreshing sleep, and the patient awakes in a condition much better to continue the struggle with the disease.

The Treatment of Pneumonia in the Philadelphia Hospitals.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

DR. PEPPER reduces the initial high fever in cases of pneumonia in his wards (if, as unfortunately rarely happens, the case has been admitted just after the onset) by antipyrin or by the external use of cold water. It was for this, accompanied with severe pain, that venesection was formerly used; and he still advises its use at this earliest stage if high fever returns promptly after reduction by the above remedies. They will often produce a favorable impression, however, with less risk. Throughout the disease the fever must be carefully watched, and often requires to be promptly reduced. Sometimes large doses of quinia—as thirty or forty grains given in two doses at intervals of four hours—will do this; but antipyrin is so much more prompt and certain that he prefers using one of them, and especially antipyrin, for the occasional control of the hyperpyrexia, while giving continuously a moderate amount of quinia, say ten or twelve grains daily. Quinia meets several indications in pneumonia, and he nearly always gives it, adapting the dose to the grade of disease and special conditions of the patient. As the stomach must be very carefully guarded in pneumonia and everything avoided that might irritate it, it is often better to give quinia by the rectum.

He is more in the habit of using aconite than veratrum, but one or the other of these powerful and reliable arterial sedatives should be used during the early days of the attack, given in frequent and moderate doses so as to produce safely their physiological effect by lowering the pulse rate, relaxing the system and aiding in reduction of fever. Later, if the pulse loses force or after the area of the disease has become defined, the indication for arterial sedatives has usually passed.

Not only must care be taken to avoid irritation of the stomach, but in many cases, especially in the early stage, there is much gastro-hepatic congestion and irritation present, and here it is important to limit ourselves to relieving this by short courses of small doses of calomel with or without soda, using meanwhile quinia by the rectum to control fever. It is especially in these cases that aconite is

preferable to veratrum on account of its tendency to irritate the stomach. After the disease is developed, ammonium carbonate is preferred to stimulate respiration and favor resolution. It is usually given in simple emulsion, and in doses of five grains every two or three hours for an adult.

The diet must be adapted carefully to the state of the stomach. It should be liquid throughout, and for the first two or three days should be restricted, but after that may be more free and concentrated if well received. It is extremely important that the patient be not allowed to make any exertion. Rigid rest must, indeed, be insisted upon, for pneumonia is one of the diseases in which sudden death is apt to occur from any improper effort, as even of rising to sit upon a commode by the bedside.

The indications for alcoholic stimulants are drawn from the state of the circulation and nervous system. Many cases do well without any stimulus from the beginning to end; but on the other hand the signs of cardiac failure or of failure of nervous force call for alcohol, which may be required to be given freely. Of course, it is to be adapted, as to amount and mode of administration, to the state of the stomach. In general, a layer of cotton or wool batting stitched inside of the merino undershirt, over the outside of which a layer of oiled silk is placed, is preferable to poultices. The latter must be made skillfully to be pleasant; they must be changed frequently, and unless this changing is done with great care, there are both fatigue and risk involved. Of course the above remarks apply solely to croupous pneumonia.

Dr. Osler, in hospital practice, recognizes two groups of pneumonic patients—the alcoholic and the temperate. A majority of the former die in spite of all treatment; a majority of the latter get well with any or no treatment. That the mortality from pneumonia in the large general hospitals uniformly above twenty-five per cent. is due to the fact that to them are admitted the debilitated paupers of the community, with systems undermined by exposure and drink, and in no state to combat an acute disease. Alcoholics with renal inadequacy rarely survive pneumonia.

When the disease is limited, the fever moderate and the pulse good, a dilute acid mixture is given with Dover's powder to allay the pain and the cough. Cotton wadding or, if the patient prefer, light poultices are applied to the affected side. Blisters are never used.

As the disease can neither be cut short nor essentially modified by any remedies we at present possess, in severe cases we have to watch and meet the tendencies to death.

First. Heart failure from engorgement of the right chambers, and the lesser circulation, indicated by cyanosis and urgent dyspnea. Free venesection can alone meet this danger, and should be performed on the first signs of cyanosis, with failing heart. Good results have followed the removal of from eighteen to twenty-five ounces of blood. It is often left too late, and to be efficacious should be done early. It is not always successful. Two cases bled this season died.

Second. The fever, against which quinine, antipyrin, and antifebrin are employed; but the action of antipyretics in pneumonia is more uncertain than in other acute fevers. Cold sponging and the cold pack are more effectual when the temperature becomes dangerously high.

Third. The increasing debility, systemic as well as cardiac, demands stimulation and careful feeding. A majority of the fatal cases die of progressive heart failure, against which alcohol is given freely. Digitalis is also employed, but the full tonic action of this medicine is rarely seen in the weak heart of fever. Camphor and strychnine are useful in this condition.

Of medicines, carb. nat. of ammonium is freely given. Opium is used to allay the early pain and to quiet the cough. Extensive bronchitis with liquid expectoration is a contraindication. Arterial sedatives are not much employed, but when the cases are seen early, aconite is sometimes given. In the mild cases they are not often needed, while in the more severe ones they may be positively injurious. Expectorants are rarely called for, and when used the ammonia and nux vomica fulfill the indications. A milk diet is given, varied as occasion arises.—*Phil. Med. News.*

Antipyrin in Puerperal Fever.

BY A. B. ANDERSON, M. D., PAWNEE CITY, NEB.

FEVER occurring during the puerperal state, whether due to septic, infectious or malarial causes, is much to be dreaded, and any remedy or treatment that will greatly aid

us in the successful management of these cases is highly appreciated by every practitioner.

Without going at all into the pathology or etiology of puerperal fever, it is our purpose to give some suggestions based upon experience in the treatment of fevers occurring in the puerperal state. Perhaps the most frequent form in this latitude is that of a malarial nature, but which is modified by the condition and surroundings of the puerpera until it becomes a much more serious case than one of a purely malarial nature uncomplicated by the puerperal condition. Again these cases may be increased in severity by a complication arising from septic influences. In all of these cases the temperature runs high, is difficult to control, and convalescence is tedious and subject to frequent relapses.

I claim for antipyrin especial praise in puerperal fever, not that it has any specific action, except that it is sure to control the high temperature, and in this direction alone is a very great adjunct in the treatment of this disease. In the first place it makes the patient much more comfortable by acting on all the secretions except the bowels. Under its use the kidneys respond promptly, the skin is bathed in perspiration, the secretions of the mouth are improved, the dry fissured tongue is moistened up, and a general feeling of comfort is induced. So uniform are these results that I confidently expect them to follow as certainly as purgation follows the administration of a dose of sulphate of magnesia. However, this does not cure the patient, by any means, and if this and other remedies were not continued, the same train of symptoms would reappear.

When there is septicæmia the patient may not recover, but I think her chances are increased tenfold by the judicious administration of antipyrin. How often have we utterly failed in getting satisfactory results from the use of quinia in these cases? It may be because the secretions are locked up and the quinia is not absorbed and produces gastric irritation instead of sedation. The same is true of iron. The latter is useless, if not positively harmful, when there is high temperature, dry tongue and constipated bowels. Antipyrin acts like a charm in bringing about that condition of the system appropriate for the administration of quinia and iron.

In a case of puerperal fever, which I have pronounced septic, in which there was a great tenderness of peri-uterine and pelvic tissue, in which there was alarming dyspnœa,

night temperature (105°) and chills, which failed to respond to 10 grains of quinia every six hours with alteratives and heart sedatives, made a good and every way satisfactory recovery, the initial step dating from the first dose of antipyrin. Below are my notes of this case, hurriedly kept:

Mrs. P., aged 26; married five years; first pregnancy; was confined on the 16th of January, 1887, attended by Dr. C. I was called on the 21st: patient had had a chill previous night; found her as follows: dorsal decubitus, great tenderness over lower part of abdomen, especially in right iliac region, temperature 104° , pulse weak and frequent, countenance pale and anxious, complaint of difficulty in breathing. Examination showed no trouble with the lungs. Diagnosis, puerperal fever.

Treatment—Gave opium for pain, quinia and digitalis for the pyrexia and hot fomentations for the bowels. 22d, found patient feeling somewhat better, pulse stronger, countenance brighter, temperature 103° . 23d, patient worse, temperature 104° , pulse 130 and weak, difficult breathing, excessive tenderness over lower part of abdomen, no general peritonitis. Vaginal douches of hot carbolized water were ordered previous day, but not very well carried out. Lochia virtually stopped, vagina hot and dry. Gave to-day 5 grains quinia with five drops tincture ferri chlorid. every four hours, with digitalis and whisky alternated. January 24th, patient slightly better, temperature 103° , pulse 96, and feels more comfortable, unable to pass water; use the catheter and continue former treatment. Was called again in the night; attendants thought the patient dying. She had evidently had a chill, which was followed by high fever and oppressed breathing. 25th, continued treatment. 26th, same treatment continued. 27th, patient so disgusted with quinia in the various forms in which I had administered it that she refuses to have any more of it; also refuses milk and whisky; changed to 10 grains of quinia dissolved in hydrochloric acid every six hours, giving some grape wine instead of the whisky. 28th, had a prolonged chill from 5 to 8 p. m.; temperature 104° at 6 o'clock, and patient complaining of being cold; 10 grains of quinia was given at 6 p. m., dissolved in hydrochloric acid; vaginal discharge purulent and offensive; catheter used twice daily, and turpentine stupes to abdomen. 29th, same condition and no particular change in the treatment. 30th, no chill to-day, but high temperature (105°), great depression, pulse 120, and

weak. 31st, no change, temperature 104° , countenance anxious, watches every move I make, evidently trying to read my prognosis; temperature has not been under 104° at any time during the last three days. Patient has had 10 grains of quinia every six hours during that time. Somewhat cinchonized. Determined to drop the quinia, as it has utterly failed to control the high temperature. Gave 10 grains of antipyrin at 1 p. m., and waited its action. At 2 p. m. temperature was down to 102° and patient feeling better. I directed the nurse to repeat the dose at 6 p. m. if the temperature was not below 102° ; left also sol. ferri nitrate to be given in 5 grain doses every three hours. February 1st, found the patient feeling much better, is stronger, and has taken some nourishment with relish; temperature 102° , nurse says temperature was down below 100° all night and rested well. I ordered 5 grains antipyrin and repeated at intervals of four or six hours to keep the temperature at or below 100° . February 2d, patient still better, temperature $100\frac{1}{2}^{\circ}$ at 4 p. m., puls. 96, skin moist, has relish for food, takes buttermilk and gruel; has taken three 5 grains doses of antipyrin in the last twelve hours; has had no quinia in forty-eight hours, and has had no chill. Kidneys act naturally to-day; some pain; bowels move well every other day by enema. 3d, patient doing well every way.

Was called in the night to use catheter. Drew one-half pint of rather highly colored urine. Prescribed nitre, tr. iron and nux vomica; temperature $98\frac{1}{2}$, pulse 96. From this time the patient made a rapid and uninterrupted recovery.

This, with a number of other cases, has proven to my mind that in antipyrin we have an invaluable remedy in puerperal fever. Say what you may about removing the cause of disease, experience plainly teaches us that we must attack the symptoms. In a great many of these cases the fever stands as a barrier before us in our attacks upon the disease. And when we control this condition, we save the powers of the patient to resist and meet other complications that may arise. When Dr. Thomas would use the rubber coil, I would use antipyrin. Dr. Fordyce Barker recommends when quinia fails to control the pyrexia, to use Warburg's Tincture. I would say, when quinia fails, and it generally will fail in puerperal cases, give antipyrin. If you give it as a specific you will be disappointed, but if you give in moderate doses to bring down the fever, to moisten the

skin, to act on the kidneys, to increase the secretions of the mouth, you will not be disappointed, or your experience will not accord with mine.—*Peoria Med. Monthly.*

Preputial Irritation.

BY J. S. MILLER, M. D.

A paper read before the Peoria Academy of Medicine.

CHILDREN from infancy to the age of five years are especially liable to nervous disturbances. The excitability of the growing cerebro-spinal center is excessively great at this period, and slight causes, which would prove without effect in adults, are, in infants, sufficient to produce grave results. This excitability varies greatly in different temperaments, and is doubtless influenced by hereditary tendencies, mode of life and climatic influences. While some children are tolerant of external impressions to a remarkable degree, others are extremely sensitive, and the most trivial cause will originate a train of nervous symptoms, which not only proves very annoying, but often eludes the most careful and painstaking investigation.

I do not propose to discuss nervous diseases in children, in its entirety, but limit myself to a brief consideration of some of the nervous phenomena induced by peripheral irritation. Examples of the most common source of local irritation, exciting convulsions and other nervous manifestations are offending ingesta, dentition, burns, scalds, blisters, severe itching, accumulation of wax in the external ear, foreign bodies in the nostrils; in fact foreign bodies in any of the tissues of the body is found to be the exciting cause of convulsions.

Some years ago I met with a case where a bean in the ear was the exciting cause of a most disagreeable train of nervous symptoms in a girl five years old. The history of the case I will report later. I desire this evening to call attention to the condition often existing in male children, which gives rise to profound nervous symptoms, often of an obscure character. I am prompted to report upon the subject because of some recent experience, and because I believe reflex troubles, due to genital irritation, are a much more common source of trouble than is generally supposed.

Very little light is shed upon this subject by the text-books in use, but since Dr. Sayre first called attention to this source of reflex disturbance, clinical and experimental studies demonstrate that paralysis, convulsions, and a host of other reflexes, due to preputial irritation, is a very possible condition, and one which should always be taken into consideration in investigating nervous demonstrations in children.

"In infancy there normally exists a slight adhesion of the prepuce to the glands. In a few years, however, there occurs a gradual unfolding or separation due to the growth of the organs," or the vicious habit of handling the part so commonly indulged in by boys. In many cases, however, the foreskin is found adherent to the glands, the union being effected by an inflammatory action. As a result of a contracted prepuce, the urine accumulates between the glands and foreskin, and notwithstanding the efforts of the child to expel it, a quantity remains which provokes inflammation of the mucous membrane and glands, and they become so firmly united by inflammatory action that considerable force and dissection is frequently required to liberate them.

Behind the glands is a sulcus where an excretion is constantly deposited. The adhesion prevents necessary cleanliness; the excretion continues to be poured out, the watery portion is absorbed and an earthy concrete often remains, which by continual pressure may give rise to paralysis, convulsions, want of co-ordination and choreic movements.

"The brain loses its control over the muscles, so that the child is in a condition very like that of a choreic child"—Sayre.

The frequency of this condition, and the inconvenience attendant upon it, probably led the lawgivers of the Jewish people to adopt circumcision as a religious observance. The hygienic principle which probably led to this practice among the Jews, might be adopted as a wise sanitary measure among all nations at the present time. However, it is not the sanitary or religious observance of circumcision I wish to consider; but its value as a surgical means in curing the class of reflexes to which I am about to refer.

My attention was first called to preputial irritation by reading a lecture entitled "Paralysis from Preputial Irritations, so called Spinal Anæmia," delivered by Dr. Lewis A. Sayre, at Bellevue Hospital Medical College, September 23, 1886. Dr. Sayre was, I believe, the first to call attention

to the disturbance caused by this condition, and I can do no better than quote somewhat at length: "I will try to make some remarks to you to day upon the subject of which we know nothing, or very little; being on that account I suppose one of the most important things I could bring before you. It is a peculiar condition of the nervous system, producing paralysis more or less complete; sometimes complete and a loss of co-ordinating power. The brain loses its control over the muscles. So that the patient is in a condition very much like that of a choreic child. You know that chorea has been called by an eminent English writer, an insanity of the muscles. The muscles act on their own accord involuntarily, and contract and extend themselves without the controlling power of the person's brain. This peculiar condition of the nervous system, produced by constant persistent irritation, whether that irritation be excited at one particular part—either on the surface of the body, called peripheral irritation, or some internal organ, called central irritation—by long continuance and persistent action, produces such an influence through the great sympathetic nerves, as to reflect upon the whole system and produce the peculiar characteristic condition, the loss of controlling, or co-ordination as it is called."

Dr. Sayre says he formerly looked upon this condition of the nervous system as spinal anæmia; that in a paper he formerly published upon this subject, he unfortunately put in the name "spinal anæmia," but that he does not know whether it is anæmia or hyperæmia.

Brown Sequard regards reflex paraplegia due to spinal anæmia. He believes that irritation of peripheral nerves is propagated along the vaso-motor nerves, the result of which is contraction of the blood-vessels and exclusion of a due amount of blood from the spinal cord, the nerves proceeding to or coming from the cord and the muscles.

C. B. Radcliffe, in Reynold's system of medicine, makes the statement that while there is no doubt in his mind that irritation of the vaso-motor nerves may lead to a contraction of the blood-vessels, and thereby exclude a due amount of blood; yet it is none the less certain that irritation carried beyond a given point may, by paralyzing the vaso-motor nerves, lead to relaxation of vessels, and thereby admission into them of an undue amount of blood.

Shortly after reading the lecture of Dr. Sayre, my attention was called to a child five years old, the patient of a most

excellent physician, who had been having convulsions at irregular intervals for nearly a year. I called my friend's attention to the article of Dr. Sayre. He kindly invited me to see and examine the case with him. We found the prepuce contracted and very adherent to the glans. After explaining the nature of the case to the parents and giving a reasonable hope of success, they consented to an operation. Next day the child was circumcised, the mucous membrane torn and dissected from the glans and the contracted smegma, which was impacted behind the corona, removed. The child improved in general health and the convulsions ceased as by magic.

The next case I saw was a child seven years old, a victim of night-horrors. This patient was irritable and cross during the day and extremely restless at night. Scarcely a night passed without one or more attacks of night-horrors. He would awake from his sleep in such a frenzy of fright that it sometimes required an hour or more to quiet him. This child was pale, anæmic and much emaciated. The bromides, iron, mineral acids and bitter tonics had been administered, but to no purpose. I was quite discouraged. The thought, however, occurred to me to examine the penis. The foreskin was not contracted, but seemed to glide over the gland without difficulty, but in retracting I observed a point of union just below the corona; more careful examination revealed the fact that the adhesion extended entirely around. I broke up the adhesions with my fingers, retracted the foreskin thoroughly, and turned out a hard, crescent-shaped smegma. This case also made a rapid recovery.

By far the most interesting case coming under my observation was that of a young man upon whom I operated last week.—Joseph O. B., aged 14, well developed and robust, presented the following symptoms: Pain in the back, reflected down the thighs, a shambling, unsteady, straddling, awkward movement in walking; inability to arise from a chair without assisting himself by placing the palms of his hands upon his thighs; tonic choreic movements of fingers. The patellar tendon reflex was at times exaggerated, at others almost completely abolished, occasionally it was present in one leg and absent in the other, and vice versa; inability to cross the legs while sitting; a hyper-sensitive condition of the nervous system, inducing convulsive action of the extensor and flexor muscles of the forearms was es-

pecially marked. In addition to the above symptoms a peculiar condition of the spinal muscles, said to be pathognomonic of hip-joint disease, was found to exist, I refer to inability of approximating the spine to a flat horizontal surface, while the legs and thighs are extended. Here was a case presenting a train of nervous symptoms, simulating in some respects locomotor ataxy, incipient hip-joint disease, chorea, muscular sprain and myalgia. Upon examining his penis I found it quite small, the prepuce terminating in a small opening; was unable to retract the foreskin sufficient for any part of the glans to be seen. This case presented so many points of interest that I requested several other medical gentlemen to see the case with me (Drs. Will, Coulter, DuMars, Bourscheidt,) and give me the benefit of their professional opinion. They confirmed my diagnosis and proposed plan of treatment. The operation of circumcision was performed, and a large amount of hardened smegma removed from the sulcus. Since the operation, which was performed two weeks ago, the improvement has been progressive and rapid. At the next meeting of the Academy I shall be glad to report progress.

NOTE.—June 1, '87. The young man continued to improve, and is now in perfect health.—*Peoria Med. Monthly*.

The Influence of Tea, Coffee and Cocoa on Digestion.

Dr. James W. Fraser, in the recent number of the *Journal of Anatomy and Physiology*, has recorded the result of an interesting series of experiments on the action of our common beverages on stomachic and intestinal digestion. The experiments have been most carefully arranged from a physical standpoint, and give us some valuable hints on the digestion of the chief alimentary principles, but they have no bearing, it should be mentioned, on individual variations of human digestion, or on the influence of various glands in preparing the gastric or intestinal juices. They are, however, of much value in showing how standard preparations of the peptic and pancreatic ferments are modified in action when our ordinary daily beverages are allowed their free action on the digestion of various articles of food. The digestive processes were carefully investigated, and absorption was imitated by a proper dialysing arrangement. An artificial peptic juice, and afterward an artificial pancreatic juice,

were employed, and the amount of nitrogenous matter dialysed was most carefully estimated. The food stuffs experimented on were raw and cooked serum and albumens, raw and cooked myosin, syntonin, alkali albumen, casein, gluten, starch and oleine. The results obtained from an exhaustive series of experiments and analysis show that all the three typical infused beverages—tea, coffee and cocoa—retard the digestion and absorption of all the nitrogenized proximate principles of dietetic substances when peptic and pancreatic digestion are taken together, and that they uniformly retard peptic digestion, although tea may assist the diffusion of peptones from the stomach. Pancreatic digestion is also uniformly retarded, and diffusion thereafter is but rarely assisted, so that neither of them compares advantageously with water as a standard beverage for experimental investigations. A summary of dietetic advice is added to Dr. Fraser's observations, which will in the main agree with that which is now given by our best authorities in cases of dyspepsia; and we are glad that experimental inquiries afford so strong a basis of support to empirical observations:

"1. That it is better not to eat most albuminoid food stuffs at the same time as infused beverages are taken, for it has been shown that their digestion will, in most cases, be retarded, though there are possibly exceptions. Absorption may be rendered more rapid, but there is a loss of nutritive substance. On the other hand, digestion of starchy food appears to be assisted by tea and coffee; and gluten, the albuminoid of flour, has been seen to be the principle least retarded in digestion by tea, and it only comes third with cocoa, while coffee has apparently a much greater retarding action on it. From this it appears that bread is the natural accompaniment of tea and cocoa when used as beverages at a meal. Perhaps the action of coffee is the reason why, in this country, it is usually drunk alone or at breakfast, a meal which consists much of meat, and of meats (eggs and salt meats) which are not much retarded in digestion by coffee. (2.) That eggs are the best form of animal food to be taken along with infused beverages, and apparently they are best lightly boiled if tea, and hard boiled if coffee or cocoa, is the beverage. (3.) That the casein of the milk and cream taken with the beverage is probably absorbed in a large degree from the stomach. That the butter used with bread undergoes digestion more slowly in the presence of tea, but more quickly in the presence of coffee or cocoa; that is, if the

fats of butter are influenced in a similar way to oleine. (5.) That the use of coffee or cocoa as excipients for cod-liver oil, etc., appears not only to depend on their pronounced tastes, but also on their action in assisting the digestion of fats."—*Lancet*, May 7, 1887.

Cancer of the Breast.

Mr. H. T. Butlin (*British Medical Journal*, 1887, vol. 1. 436) gives the result of the investigation made upon this subject by the collective Investigation Committee of the British Medical Association. The returns number 210.

1. The influence of mastitis in the production of cancer. Out of 174 instances previous inflammation or abscess of the affected breast had been noted in twenty-seven cases. No such disturbance had been noted in the remaining 147 cases. From the returns it may be gathered that a previous mastitis plays a quite unimportant part in the etiology of cancer. In nearly one-half of the cases twenty years had elapsed between the inflammation and the appearance of the tumor. The form of inflammation that would seem to predispose to cancer is one that is continuous, or liable to frequent recurrence, or the seat of chronic irritation.

2. The influence of inheritance. Out of 184 cases, in 116 there was no family history of cancer; in 68 there was. The manner of distribution in the 68 cases was as follows: Forty-four patients had only one cancerous relative, 19 had two, three had three, and two had four cancerous relatives apiece.

Thus the 68 patients had among them no less than 99 cancerous relatives.

In only thirty instances were the parents, grandparents, or great-grandparents of the patient cancerous.

There is thus a history of cancer in the direct line of descent in no less than 20.6 per cent. of the cases.

3. The influence of diet. Out of 194 returns 123 patients are stated to be moderate feeders, 57 small feeders and 12 large feeders. The tables do not support the statement that cancer is more common in large eaters of meat.

4. The influence of locality. The returns under this heading, as well as under the previous one, are scant and unsatisfactory. Town, as compared with country, and high elevation as compared with low, would appear to have no influence in the etiology of cancer.

The returns agree, to a great extent, with the conclusions of Mr. Haviland, who finds the lowest rate of mortality from cancer in those parts of England and Wales which are composed of the hardest and most elevated rocks, or most absorbent (like the oolite and chalk); and the highest rates in the sheltered and low-lying grounds which are composed of crag, alluvium and clay.—*American Journal Medical Sciences.*

Chicago Medical Society.

REPORTED BY BROWN AND HOLLAND.

STATED meeting, Monday, June 20, 1887; the President, W. T. Belfield, M.D., in the chair.

Dr. Harold N. Moyer and Dr. Alfred Huide presented a paper on

PERIODICALLY RECURRING OCULO-MOTOR PARALYSIS,
with the report of a case.

The patient had suffered, from her seventh year, with complete paralysis of the third nerve in all its branches. The attacks recurred at varying intervals of from four to six months, and were always accompanied by headache and vomiting. The attacks have grown more frequent of late, and since the earlier ones recovery from the paralysis has not been complete.

The literature of the affection was given, and mention made of some sixteen cases so far reported. The etiology, pathology and prognosis also received consideration.

DISCUSSION.

Dr. W. F. Coleman—This paper is so excellent and unique, I certainly have nothing like it in my own experience to relate. I have perhaps fifteen or twenty text-books in English, German and American, but none of them refer to periodical paralysis of the motor-oculi nerve, and I have seen no reference to it in any work on the eye. Isolated paralysis of the whole third nerve, even of organic origin, is a rare affection without involving other cerebral nerves. As the interesting point in the paper is the source and pathology of the disease, I will not undertake to discuss any other point. These cases are more interesting, if possible, to the

general practitioner than to the oculist, on account of the connection between cerebro-spinal disease and paralysis of ocular muscles. The post-mortem in three cases showed that the nerve trunk itself was involved, which would point to an organic origin of those cases of periodic motor-oculi paralysis, and I suppose in those cases relapses occurred from inflammatory exacerbations. I agree with Dr. Moyer that a large majority of the cases related would in all probability be functional. In his own case there were symptoms of migraine, viz.: headache and vomiting accompanying the motor-oculi paralysis. Organic lesions of the brain, such as basilar meningitis, etc., are in the great majority of cases, say seventy-five per cent., accompanied by optic neuritis. Since in the sixteen cases related by Dr. Moyer there is no mention, I believe, of optic neuritis, I infer the motor-oculi paralysis was not due to organic disease of the brain, but to functional causes. The history of the rare case is exceedingly interesting, and the literature of the subject excellently compiled. I am personally very much obliged to Dr. Moyer for his paper.

Dr. C. F. Sinclair—It has never been my experience to have met with a case precisely similar to that which Dr. Moyer has referred, neither have I met with one in my reading. But it seems to me from the number of cases to which he refers, all with symptoms resembling one another in one or more particulars, and in all of which was found this element of periodicity, that we have almost data for the establishment of a new and definite pathological condition, which would lead the way to very broad investigation in ophthalmic science. The paper is particularly interesting to me because one case to which reference has been made resembles in a very great degree one which came under my observation some weeks ago. It was a case of paresis of only one of the branches of the oculi-motor nerve, but it was sufficiently marked to cause a high degree of ptosis. The element of periodicity was present in this case, and that, I take it, is the peculiar feature in the cases cited by Dr. Moyer. In the case to which I refer were associated with the paresis other both peculiar and morbid conditions. My patient was a young woman, æt. 17, of German parentage. When I first saw her I noticed at once a peculiar expression of the eyes, which I found came from the fact that one was a light, almost sky-blue and the other a gray. She told me that three years previous both of her eyes had been

dark brown, and that two years ago the left eye began to grow lighter in color, changing to a light gray. That is a phenomenon which I must confess never to have heard of before, where the pigment in the eye of a person of that age has undergone such marked changes within a period of three years without any evidence of iritic inflammation to account for them. Dr. Moyer, I believe, mentions a case where this oculi-motor paralysis had occurred in the spring successively on several different occasions. The attacks which my patient suffered occurred also in the spring, coming on each time in the same month and nearly the same day. When she came under my care she was suffering the third attack, which was precisely similar in every respect to the two preceding. There were days of extreme languor and drowsiness during which time there was an irresistible impulse to cry on the slightest occasion. Then followed the ptosis accompanied with severe neuralgic pain through the temple and over the vertex of one side, and at the same time a small infiltrated ulcer made its appearance on the lower margin of the cornea. The usual local means I found entirely unavailing in checking the attack. This case suggested to my mind the possibility, and the suggestion has been renewed with added force to night, that as ophthalmic surgeons we are apt to dwell solely upon the local manifestations of disease in the arteries, tunics of the eye and its appendages and to limit our treatment entirely to local treatment. It seems to me that it is time for us to recognize the fact that in many of the morbid conditions of the eye which we have been accustomed to consider as altogether of local origin, the causation lies in reality much deeper, either in the great nerve centers or in diseased conditions of other and perhaps remote organs, and unless we direct our remedial measures to these, our results can only be transient and unsatisfactory.

Dr. Moyer in closing the discussion said, here, as in similar cases, we need to have an exact definition of what we mean by the term "functional." If we call only those lesions organic in which there is an absolute degeneration or destruction of the nerve cells, and speak of transitory congestion as "functional," then we must all admit that many, perhaps most, of these cases fall within the latter class. But the term used in its strictest sense, that is in the sense that hysterical or reflex conditions are functional, then the only case, so far as our observation extends, ever reported

is the one described by Jacobi. Every case of the seventeen so far reported, including our own, has been progressive. The recovery earlier in the disease was complete after each attack.

Later a certain amount of paralysis would remain. Möbius refers the paralysis to an inflammation or congestion of the nucleus of the nerve, coming on periodically, and which in time results in a certain amount or even total paralysis. The anatomical diagnosis is the most interesting feature of the case. We have purposely refrained from offering any theories of our own regarding the probable seat or nature of the difficulty; yet we confess to a strong leaning toward the theory of a nuclear degenerative process. As Dr. Coleman has pointedly said, the disease is not associated with any changes in the retina or optic disc; which rather militates against the theory of a basilar meningitis as the basic pathological condition. We must, however, admit that the two earliest cases that came to a post-mortem examination were basilar in their nature, and in the third an enchondroma had impaired the integrity of the nerve.

CANCER OF THE TESTICLE, WITH SECONDARY PLEURISY.

Dr. John A. Robinson, exhibiting the pathological specimens, said: The subject from which this specimen was obtained was a Frenchman, aged about thirty-five years, who was admitted to the Cook County Hospital about two months ago for a tumor of the left testicle pronounced carcinoma, of eleven months' standing. An operation was advised and refused, the patient leaving the hospital. A few days ago he returned with all the signs and symptoms of effusion in the left pleural cavity. The symptoms were so severe that I ordered him to be aspirated, and remarked that the product of aspiration would undoubtedly be bloody serum. So it was. The patient lived only a few hours, and the autopsy demonstrated that there was a large cancerous tumor six inches in diameter in the scrotum involving the left testicle, also a tumor nearly as large in the abdominal cavity, with secondary cancerous deposits over the pleuræ of both lungs at the apices.

The symptoms of cancer of the pleura are always obscure, unless we have history of primary cancer in some other part of the body. This is the fourth case of pleural cancer I have seen, the causes in these cases being respectively cancer of the kidney, as diagnosticated by Dr. Fenger, cancer

of the humerus, cancer of the liver, and the present case of cancer of the testicle.

The exudation in cancerous pleurisy is serum mixed with blood and tissue detritus, if the cancer granulations are degenerating. I believe the bloody serum is almost pathognomonic of cancer, as about the only diseases in which we obtain such a fluid on aspiration are pernicious or malaria anemia, phthisis and purpura, and even in these diseases the exudation is more likely to be purulent.

Two causes for the hemorrhagic effusion have been assigned:

1. The effusion is the result of the breaking down of the cancerous granulations.

2. It is the result of the cancerous cachexia, where the blood is impoverished, the absorbent vessels weak and osmosis very rapid.

I am inclined to believe the effusion is due to inflammation produced by the presence of these foreign bodies—the granulations—and the breaking down of these granulations.

Remarks.—These cases teach me this lesson, that oftentimes patients who suffer from cancer of some portion of the body amenable to treatment frequently die of secondary cancer of the pleura, which might have been averted had the primarily diseased tissue been entirely removed. This is certainly true of many cases of cancer of the genital organs, breast, bones, etc.

The specimens were then exhibited. They consisted of the original cancerous tumor of the testicle, the collapsed left lung, whose pleural surface was thickly covered by the reddish exudate, and the right lung in the apex of which was a cancerous growth one and a half inches in diameter.

DISCUSSION.

Dr. H. A. Johnson—Cancer of the lungs occurs primarily but very rarely. I have seen two cases. Recently I saw a case which I supposed to be cancer of the lung, in which there was primary cancer of the larynx. It was interesting as the only case I have seen where cancer of the larynx has been followed by secondary cancer.

Dr. Robert H. Babcock—I am particularly interested in the case just mentioned, especially in that part pertaining to cancer of the pleura. I was reminded of a case that it was my good fortune to see in Munich, by the remark that serum mixed with blood is almost pathognomonic of cancer

of the pleura. In the hospital, in charge of Von Ziemssen, was a man who had been in several hospitals, and in whom Bamberger in Vienna had diagnosticated cancer with pleurisy of the left side. The same diagnosis was made by Von Ziemssen and his assistant. I examined the case, and although I do not remember all the signs present, I remember being struck with the extreme flatness over all the left side, the absence of respiratory sounds, the resistance of the side. The assistant informed me he had been tapped and a bloody discharge obtained which seemed to confirm the diagnosis. A day or two previous to my leaving Munich I inquired about this case. The man had died, and they found no cancer whatever, but a remarkably thickened condition of the pleuræ, the fibrinous deposit having become very highly organized. It was the oozing from the blood-vessels which were severed in the tapping which had given the bloody discharge and misled such celebrated men as Bamberger and Von Ziemssen.

Dr. Elbert Wing—I do not know of a case that is similar to this, but I remember a case which I saw diagnosticated by the late Prof. Frerichs, of sarcoma of the lung, primary. The symptoms were those of severe, acute, lancinating pain, and rapid development of the tumor, with no family history showing what the lesion might be. The physical signs were those of consolidation at the right apex. Everything else being excluded in the diagnosis, Prof. Frerichs said it was either a carcinoma or a sarcoma, and that as sarcoma of the lung was much more common he presumed it was sarcoma. After a post-mortem microscopical examination Prof. Frerichs' assistant said it was a case of sarcoma. Prof. Virchow's assistant said that it was carcinoma. It was probably one of those cases that are right on the border line between the two tumors, viz.: sarcoma-carcinomatodes, and the examination not complete. In regard to the blood effusion or fluid in the pleural cavity, I happened to hear Prof. Frerichs say he always regarded that as an indication of tubercular pleuritis.

Dr. Frank Billings—The only thing of interest I have to offer is in regard to the color of the serum. Prof. Nothnaegel, Bamberger and Kundrat, of Vienna, teach that bloody serum in *any serous* sac is due to (1) a malignant growth (carcinoma, sarcoma, etc.), (2) tuberculosis, and (3) to poisons that cause fatty degeneration of the walls of blood-vessels and consequently capillary hemorrhage (phosphorus).

The presence of the bacillus tuberculosis would easily differentiate the first two causes, if the growth in the lung were primary carcinoma. The last cause would hardly be mistaken for the first two.

Dr. J. J. M. Angear—I do not know, Mr. President, that I have anything further to add to this subject, except as far as my observation goes, cancer of the pleura has always been secondary. I have seen cases of secondary cancer, not only of the pleura, but of the sub-serous tissue of the pleura, the connective tissue around the base of the heart infiltrated with malignant growth, as well as the substance of the lungs. Bloody serum comes from extreme passive congestion, impoverished condition of the blood, as well as from the breaking down of the cancerous growth. Our knowledge of the primary cancer aids us greatly in recognizing the cachexia. Taking these two things together with a bloody serum in the pleura, the diagnosis of secondary cancer of the pleura becomes simple.

Dr. John A. Robinson, in closing the discussion, said: The diagnosis of cancer was simply suggested to me by the nature of the tumor, the slow growth, and the amount of pain the patient had, etc., and finally, the character of the effusion. The question that puzzles me most is whether, when aspirating a patient we get this reddish fluid, it is not a pathognomonic sign of cancer. It has been my good fortune to have had an extended experience in the aspiration of a large number of patients, tubercular and otherwise, and in cases where I obtained well-marked physical signs of tuberculosis (it was before we examined for bacilli) never have I obtained this reddish fluid, and in all cases of cancer which I have aspirated I have obtained this reddish fluid. It was the same color each time. I am groping about for an opinion, but would not say positively that when we get that kind of fluid the patient has cancer.

Dr. Robert H. Babcock reported

A CASE OF PERICARDITIS AND ENDOCARDITIS.

Mrs. B., æt. 23, Norwegian, consulted me April 30, 1887, complaining of precordial pain and dyspnea. History was as follows: Her mother died of heart disease, father in good health, youngest sister had heart disease as a result of rheumatism, strong family predisposition to inflammatory rheumatism. After birth of only child, six years ago, patient was ill a year of rheumatic fever, but had no knowledge

of heart or lung complications at that time ; since forepart of last winter has been suffering with rheumatism in ankles, left knee and corresponding shoulder. For past three weeks has been unable to lie down because of pain in the chest and shortness of breath. No history of any lung trouble.

Her symptoms were acute precordial pain, intensified by dorsal decubitus, pressure and full inspiration ; also slight joint pains. Cough troublesome with mucous expectoration ; sleep very broken, appetite poor, constipation, dry coated tongue, no fever, pulse 120, feeble and unequal. Respiration short, hurried and sighing.

Examination of heart revealed impulse in fifth interspace outside of mammary line, feeble and preceded by a short thrill, a very marked pulsation in third left interspace close to sternum, due to closure of pulmonary valves ; considerable increase in all diameters of the area of precordial dullness, particularly above and toward the left where the lung border was retracted and fixed. Upon auscultation was heard a short, rough, presystolic murmur at the apex, followed by a higher pitched systolic whiff, which latter murmur was propagated into the axillary region and on to the base of the heart. Over the body of the organ was also heard a rough sound of rolling character, not unlike the rhythm produced by the hoofs of a galloping horse. Owing to the weakness and evident misery of the patient the lungs were not examined, a fact I now greatly regret. The diagnosis was acute, simple endocarditis, supervening upon chronic endocarditic changes ; mitral stenosis and insufficiency ; pericarditis and possibly myocarditis ; chronic inflammatory rheumatism. Rest in bed, hot applications to the precordia, salicylate of sodium and digitalis in small doses were prescribed. In a day or two the digitalis was discontinued, however.

Under this treatment the pain in the chest was abated, and the patient's condition improved, although the pains in the joints continued. At the end of ten days, upon her urgent solicitation, she was permitted to get up and lie on the lounge. The pulse never became slower than 110 to the minute, which I considered a bad indication from the close of the first week. At the end of another ten days or so she took to her bed, complaining of anorexia, nausea and inability to retain food. The tongue was heavily coated and dry, and slight catarrhal icterus developed. A few

small doses of calomel, followed by an alkali and simple bitter, afforded prompt relief, and for the next week the patient appeared to improve in some respects. Her condition was tolerably comfortable by day, but by night she suffered much from restlessness, pain and dyspnea. Repeated examination of the heart disclosed no increase of precordial dullness, while the endocardial and friction murmurs became even more intense and characteristic, except for a short time during which the urine was very scanty. The lessened intensity was probably due to effusion, as very likely was also the abatement of pain. Under the effect of a diuretic the friction sounds reappeared with added distinctness. June 2d she suddenly developed an acute attack of rheumatism of the left wrist and thumb joints, with coincident aggravation of chest symptoms. A double to and fro friction sound became remarkably distinct over and about all the ensiform cartilage. Temperature was 102° F. Salicylate of soda brought prompt relief from pain, with, however, but transient effect on the temperature. The urine, which was intensely acid, was rendered alkaline by bicarbonate of potash.

Sunday at 2 A. M. she was seized with a sharp pain in the chest and epigastrium, lasting two hours, only relieved by opium. When I visited her next day she was suffering much from dyspnea and exquisite pain in the epigastrium. The lightest pressure could not be borne, while the abdominal walls were very tense. Satisfactory percussion and palpation were out of the question, and hence I was greatly puzzled to account for her symptoms. Pulse 138 and very feeble. Cursory examination of the lungs disclosed mucous rales at right base posteriorly, and slight dullness below the angle of left scapula, with tympanitic note above. A loud, rough, systolic murmur obscured the respiratory sounds, but the voice was heard with great distinctness. Hot applications to the epigastrium afforded relief to pain and the abdomen became less tense. At 11 P. M. of Wednesday there was sudden defervescence followed by profuse perspiration for the balance of the night. Thursday P. M. she was without fever and comparatively free from pain. Upon examining the chest I found the physical signs very much as three days before, except that there were moist, for the most part subcrepitant rales over the area of dullness, voice very distinct. Cough was well nigh impossible by reason of the pain; the scanty expectoration had a slight brownish

red tinge. I made up my mind that I had a pneumonia to deal with, which had sneaked in and escaped my notice. Further reflection, however, convinced me that this opinion was probably an error, and that there was a hydrostatic congestion with bronchitis.

The patient's strength gradually waned, and the following evening death closed her struggles. She and I were both handicapped throughout, as she had no good nursing, but was dependent upon the tender (?) mercies of indifferent neighbors. So far as possible, nevertheless, the treatment was supporting and anti-rheumatic, although in combating the rheumatism with potassium salts and salicylate of soda I had to exercise caution for fear of depressing the already weakened heart. Death took place from exhaustion.

A few more words and I shall have finished. The chief symptom complained of was in the precordium and between the shoulders behind. This was probably due directly to the acute pericarditis, which the autopsy showed had been limited to a small area on the anterior surface of the left ventricle just below the origin of the aorta, and to the posterior aspect of the left auricle, which latter situation, it seems to me, would account for the interscapular pain. Since the necropsy revealed no cause for the epigastric pain and tenderness, it is reasonable to assume that these were reflected. I have since found a statement in Ziemssen's Cyclopaedia to the effect that this epigastric pain and tenderness on external pressure is not an uncommon occurrence in pericarditis.

I, of course, suspected the existence of pericardial effusion, but did not at any time demonstrate its existence to my satisfaction, because owing to the denudation of the heart already present it did not influence the area of cardiac dullness and did not abolish the friction sounds, as I expected an effusion would do. I have since learned that according to Ceuka, as stated by Bauer in Ziemssen's Cyclopaedia, friction sounds have been audible, even when the pericardium held a quart of fluid.

Within the left pleural cavity were, as was estimated, eight or ten ounces of serous fluid which I had not diagnosed. Under favorable conditions this small quantity of liquid ought to be discovered, but in this case the conditions were so complex and so modified physical signs as to mislead me. Had the layer of fluid been of sufficient depth to intercept the sound waves, on their passage through the pleural cavity, the complete or partial suppression of the res-

piratory and vocal sounds would have revealed the presence of the effusion. In reality, however, the hypostatic congestion, discovered post-mortem, together with the comparative condensation of the lungs occasioned by the enlarged heart and effusion, produced a condition calculated to intensify the transmission of sound waves instead of deadening them. Hence, the distinctness with which I heard the rales, the voice and breath sounds, although owing to the loud, harsh systolic murmur I could not determine the quality of the respiration. The very intensity with which the mitral bruit was transmitted, still further served to mislead me. Yet, it may be asked if the effusion was so slight, How could it give rise to a tympanitic percussion note above the level of the fluid? In fact, this sign in conjunction with the consolidation below, as I supposed, was very puzzling to me at the time. Reflection, however, enables me to explain it, I think. Tympany above the level of an effusion is explained by Gerhardts as being due to the relaxation of the lungs caused by the pressure of the fluid. In other words, the normal tension of the lung is lost. In this case, whereas the effusion alone may not have sufficed to occasion material relaxation of the lung, it was assisted to this end by the pressure of the heart in front, which, as shown by the autopsy, had crowded aside the anterior border of the lung, where it had become fixed in its new position. Thus the normal lung tension was overcome.

Whether my failure to recognize the pleuritic effusion *intra vitam* can be excused on the ground of the complexity of the conditions present or not, it has proved a most salutary lesson to me; and it was in the hope that others might perchance profit by it, that I have ventured to trespass so long upon your time and attention.—*Weekly Med. Review.*

Oophorectomy for Hystero-Epilepsy.

Dr. T. A. Reamy reported the following case at the meeting of the Academy of Medicine of Cincinnati, of June 24.

Miss —, æt. 21, a well developed brunette with the marked physiognomy of an epileptic, began to menstruate at 13, and this function was for one year and a half normal and painless. Since that time, however, she has suffered greatly from dysmenorrhœa, and during the past two years her menses have been irregular, sometimes weeks interven-

ing, while at other times only three and one half weeks elapsed between the periods. At times the amount of blood was excessive, and yet there were no clots discharged. She attributed her trouble to lifting. An attack of fainting at the time of menstruation, or rather at its approach, was experienced November 10, 1885. Similar attacks have occurred at every menstrual period since, and during the past year the attacks have occurred as often as five or six times every month. Unconsciousness was complete during some of these seizures, but not all. Tonic and clonic spasms of the muscles characterized the more marked attacks, but not the milder ones. During the period of unconsciousness following an attack, it was noticed that the respiration and pulse were but little changed, but the pupils were dilated, and all the muscles dilated except the orbicularis palpebrarum, which was somewhat contracted. At the time of her admission she complained of severe headaches, especially in the occipital region. She also suffered much pain in the lumbar and occipital regions, rather more in the vicinity of the right ovary. The vagina was found slightly enlarged from the introduction of the speculum and local treatment, though otherwise normal. Uterus slightly enlarged and retroverted. Cervical discharge bathed the somewhat patulous uterine canal. The sound passed to the depth of 2.1 inches. The left ovary could be detected, enlarged and somewhat prolapsed, while the right ovary, though not perceptibly enlarged, was excessively tender to the touch, as was elicited by conjoined manipulation. The ovarian tubes could not be differentiated, nor could any abnormal condition of the broad ligaments be detected, except possibly a slight fullness on the right side of the uterus. The ovarian pain noted above, the patient said, had been present for more than a year and was quite unbearable. Though apparently in good nutrition she was weak, easily fatigued, poor appetite, and her muscles very flabby. She was nervous and somewhat hysterical.

Diagnosis: hystero-epilepsy, due to organic disease of the ovaries, the hysterical element being prominent.

Treatment: The patient was put on rest, milk diet, massage, etc., and this continued for eight weeks without improvement. The bromides, cannabis indica, etc., were tried thoroughly, without relief from pain or any apparent control of the epileptiform seizures. The hydrate of chloral was given several times for the relief of headache and always ag-

gravated the case. The patient went home for a couple of months, but did not improve. She returned again with the purpose of having oophorectomy performed. She had sought this operation long ago, but hoping to succeed by less revolutionary measures it had been refused her.

Her pleadings were irresistible, as were also those of her family and family physician. She was fully informed as to the dangers of the operation and its results. An abdominal incision was made two inches in length. The ovaries were found to be hard and rather nodular, the left bearing a soft mass on its distal extremity, and the right had two or three small cysts on its surface. Each ovary with its surface was brought in view and the broad ligament transfixed, the tube included on one side and the ovary on the other of a Staffordshire knot. The ovaries and tubes were then cut away. A small cyst of the right broad ligament was ruptured during the manipulation and its contents evacuated. The peritoneum was sponged carefully and the abdominal incision closed with four silver sutures. The operation lasted 80 minutes and the patient rallied promptly. One-fifth grain of morphine, hypodermically, was required eight hours after to quiet pain. She was given hot whisky but no solid food. She slept some during the night. During the day following she required the repetition of the hypodermic injection three times to quiet the pain. Vomiting occurred once. Temperature, 100.5° ; pulse 100. An ice bag was ordered to the abdomen, and she was allowed some pellets of ice, as her thirst was considerable. On the morning of the third day very slight tympanites was noticed. Pain in the lower abdomen increased. Some retching and vomiting present; temperature and pulse unchanged. On the evening of the third day tympanites was more marked; pain undiminished except when under morphine, and vomiting was more frequent. Temperature 100.8° ; pulse 110. Hot water was substituted to allay the vomiting and seemed for a time to have a good effect.

On the morning of the fourth day the vomiting and retching was constant and violent. A dark green fluid characteristic of peritonitis was ejected. Tympanites increased, pain severe, though patient under the influence of morphine in increased doses. Pulse 113 and feeble, temperature 100.5° . Patient very restless and anxious, and manifestly in a condition of peril. On the removal of the dressing the abdominal incision was found united throughout, in spite of the

vomiting, by first intention. An enema of warm water and salt was given, and during the outflow of the water considerable gas escaped, but scarcely any fecal matter, the rectum being empty. An enema of fifty grains of chloral hydrate was given, following which she went to sleep in less than thirty minutes, and slept quietly for five hours. Temperature 99° , pulse 110. She was given some fluid nutrition and again fell asleep and spent the night in comfort, being free from pain, not having vomited one single time since the administration of the chloral. The next day—the fifth after the operation—she was given forty grains of chloral by enema, and symptoms of severe pain vanished. On the sixth day she vomited once, and after a dose of chloral per rectum she was relieved. The stitches were removed on the eighth day and the wound healed throughout.

Her recovery has been uninterrupted.

This operation was made one year ago, and the patient since that time had a serous discharge from the uterus at each monthly time, but this was diminishing and was not bloody. The author also reported another case of removal of the ovaries where a similar discharge was kept up. He was of the opinion that these discharges would disappear in time.

Microscopy.

San Francisco Microscopical Society.

Reported for the MEDICAL NEWS by A. H. Breckenfeld, Esq.

A WELL attended meeting of the San Francisco Microscopical Society was held on the evening of June 8th at its rooms, 120 Sutter Street; President Wickson in the chair.

The committee having in charge the late reception submitted its report, showing said occasion to have been the most successful affair of the kind ever held on this coast, not only in extent but also in quality of instruments and of objects shown.

J. A. Sladky, of Berkeley, was proposed for resident membership.

An ingenious device, called the "Quimby Mounting Cabinet," was received for inspection from the Society's inde-

fatigable corresponding member, E. H. Griffith. Its purpose is to facilitate the illumination of objects by transmitted light, during the process of mounting, and this object is very satisfactorily attained by the apparatus referred to, both by daylight and artificial light.

Dr. Selfridge brought a sample of the Oakland water supply, which upon examination was found to contain large numbers of the interesting infusorian *ceratium longicorne*. Some four years ago the water supply of this city contained enormous numbers of the same little organisms.

Mr. Wickson exhibited some eggs and insects found upon an apple tree by Dr. Edward Gray, of Benicia, and sent by him to the Society for determination. Mr. Wickson remarked that it would be difficult to identify a species by the egg and newly-hatched larvæ alone, unless one is very familiar with the forms. He said, however, that the insect was of the *heteroptera*, a sub-order or division of the *hemiptera*, in which one pair of wings is thin and membranous and the other partly thickened and leathery. The *heteroptera* are divided into twelve families, and the specimen sent probably belongs to the *scutelleridæ*, a family characterized in part by the size of the shield it bears upon its back. The larvæ shown had neither wings nor shield; these parts appear later in the progress of the insect. The eggs shown were strikingly beautiful. They were oval in shape, attached to the bark by one end, while the upper end was either open—if the insect had hatched out—or still closed with its cap-like cover, if the larvæ had not appeared. The eggs are of pearly hue and had the appearance of frosted glassware. In the mouths of the eggs from which the larvæ had hatched there was to be seen the following peculiar arrangement, described by Kirby and Spence: "The egg of a *Pentatoma* is furnished not only with a convex lid, but with a lever of a horny texture, and in the form of a cross-bow, for opening it, the handle being fixed to the lower part of the egg by a membrane and the bow part to the lid. When the larvæ is ready to emerge the cap flies off the egg-case. In the specimen shown under the microscope some of the covers were shown as they had fallen off and were lodged on the bark. The eggs, etc., had been mounted by Mr. Wickson in a deep cell, which, although very simple, answered the purpose admirably. It consisted of the neck and top flange of a homeopathic vial, the lower edge having been ground flat and cemented to the slide.

MEETING OF JUNE 22.

The regular semi-monthly meeting of the San Francisco Microscopical Society was held this evening at its rooms, President Wickson occupying the chair.

Series 2 and 3 of Walker & Chase's "New and Rare Diatoms," consisting of photo-engravings of interesting forms, with descriptive text, were donated by Dr. H. H. Chase.

A communication was received from A. J. Doherty, of Manchester, England, the well-known preparer of microscopic objects, announcing his intention of visiting this city in a few months. Arrangements have been made with him for a series of demonstrations of the most approved methods used in the preparing and mounting of objects for the microscope, and from the admitted ability of the gentleman in this line his discourses can not fail to be interesting and instructive. A series of slides mounted by him and comprising a wide range of subjects, were shown under a number of microscopes last evening by J. G. Clark, and the excellence of workmanship shown by these mounts elicited the warmest commendation.

J. A. Sladky, of Berkeley, was duly elected a resident member.

The useful little device known as "Griffith's Focus Indicator," was shown by Mr. Riedy. Its object is to enable an approximate focus to be obtained almost instantly, and to prevent the accidental crushing of a slide or cover-glass by the objective, in focusing.

Mr. Norris announced that through the kindness of Mrs. Ashburner he had come into the possession of a number of exquisite slides, mounted by the late Prof. Ashburner, and comprising a number of preparations of the celebrated "original Santa Monica" find. No better disposition could be made of these, Mr. Norris thought, than to distribute them among the members of the Society, and this he proceeded to do. As appropriate mementoes of a departed friend, as evidences of his rare skill as a microscopist, and as the last remaining examples of mounts from the remarkable fragment whose history has been so closely connected with that of the Society, these slides will be considered treasures by their fortunate possessors.

Specimens of rich diatomaceous earths from near San Pedro, and from near Santa Monica, collected by Mrs. Bush, of San José, were also handed in by Mr. Norris.

Gleanings.

BILIOUSNESS.—What is commonly known as an acute bilious attack is more properly an acute indigestion.

The treatment of biliousness is prophylactic, alimentary and medicinal. Prophylaxis is concerned with avoidance of all the known causes, whether of a toxic, malarial or alimentary character. A plain diet of bread, milk, oatmeal, vegetables and fruit, with lean meat or fresh fish in moderation, and abstinence from alcoholic stimulants, seem to be the ideal fare for the biliously disposed.

Exercise in the open air is of recognized utility in promoting oxidation and elimination, enhancing the digestive and assimilative processes, and lightening the burdens of the liver. Moreover, exercise (whether by rowing, horse-back riding, gardening, walking) hinders absorption of bile by the hepatic venous radicals, and promotes the passage of that fluid into the duodenum.

The victim of an acute bilious attack will generally get righted in a few days by, first, abstinence from all food, then a diet of porridge and milk, or skimmed milk alone, and a very gradual return to solid food, which for several days should be restricted to toast, a little lean meat or broiled fish, with some succulent vegetables or ripe fruit. As for medicines, saline aperients, such as sulphate of soda, Epsom or Rochelle salts in full doses in the morning, or the now fashionable tumblerful of Hunyadi Janos, will generally suffice to clear the *primæ viæ*; the latter has especially a reputation for evacuating bile. The striking relief obtained by free bilious evacuation has often been remarked, and the veteran transgressor resorts to his blue pill or podophyllin with every recurrence of his malady. Of late euonymin has come much into use as a cholagogue.

Harley recommends to persons who seem to have a more than usual tendency to biliousness traceable to sluggish biliary secretion, and where there seems also to be defective nerve action, small doses of nux vomica or strychnia after their meals. This may be combined with belladonna and aloes as in the aloin, strychnia and belladonna pill. The bilious person is generally constipated, hence such a pill has a special utility. Fothergill's pill of ipecac, capsicum and pil. aloes et myrrh., has done good service in such cases. Nitro-muriatic acid and taraxacum have a reputation which

is probably not altogether built on imaginary results. But bilious dyspeptics, while they should be attentive to the functions of eliminations (and doubtless the ancient predilection for purgatives has been justified by modern scientific research which finds in intestinal septicæmias and alkaloids of putrefaction many of the evils formerly attributed to peccant humors and atrabiliary disorders), should aim especially to be good hygienists and learn to live right; but this is counsel which everybody gives and nobody takes.—*Boston Med. and Surg. Jour.*

COLD APPLICATION TO THE PRÆCORDIA IN FEVER.—Dr. Grigorovich has studied the effects produced by applying cold over the region of the heart in typhoid fever. His observations were made on uncomplicated cases of the disease. Respiration, at first, became somewhat quickened, and was rendered irregular by reflex action; subsequently it became slower. At the end of the application of the ice, and the next morning, it was deeper and more regular, but somewhat slower than before the ice was applied.

The general conclusions regarding the effect of applying cold to the region of the heart are as follows (*The Therapeutic Gazette*):

1. The cold undoubtedly reaches the heart itself, and thus produces an effect upon its action.
2. This effect is particularly noticeable when the cardiac beats are increased in frequency in consequence of a high temperature quickly attained, and where a certain degree of sensitiveness to a high temperature exists.
3. The effect of cold is not marked at the end of a prolonged attack of fever, pathological changes having by that time probably become established in the cardiac muscle.
4. The local application of cold is only capable of protecting the heart-muscle from the effects of a high temperature when it is applied assiduously from the commencement of the disease.
5. Under its influence the action of the heart improves, the number of beats diminishes, while their force and amplitude increase.
6. Cold applied to the region of the heart diminishes the gravity of the typhoid condition and favorably influences the respiration.
7. With regard to the effect of cold applied to the region of the heart on the course of the general temperature, the

author can not, at present, express a decided opinion, as he did not investigate the question; but in the results which he obtained indications may be found of the possibility of its causing some diminution of the temperature.—*Med. Record.*

PEPSIN IN PHARYNGEAL CATARRH.—Dr. J. Fisher, in the *Berl. Kl. Woch.*, 49-86, reports a case of pharyngeal catarrh, in which the various local and internal remedies were tried in vain, until finally, the patient complaining of some transient gastric disturbance, caused by too luxurious a meal, the doctor advised him to take five grains of Jensen's pepsin, which, by the way, is also recognized in Germany as the best pepsin in the market, immediately after each meal. The patient, who from the frequent medication had become averse to medicine, took the pepsin pure, half a grain of aromatic powder being added to five grains of Jensen's pepsin simply to preserve the latter in its dry state. The effect was remarkable. Not only the stomach improved, but after three days' use the pharyngeal catarrh also showed decided amelioration. Dr. F. then administered the pepsin in still larger doses, ten grains each, and two weeks later the catarrh had disappeared. The same remedy was afterward tried in four more cases and with the same result, but other pepsin preparations failed.

There is one symptom, that seems always to yield readily to Jensen's pepsin, viz., the peculiar dryness of which patients suffering from chronic pharyngeal catarrh are so apt to complain. The remedy ought to be taken in its pure state, only a moderate dose of aromatic powder being added to keep it dry, and it should be allowed slowly to dissolve in the mouth.

There is a complaint intimately connected with the catarrh in question, viz.: circular ulceration of the posterior nares. Patients suffering from this trouble usually have to hawk a great deal every morning, sometimes also in daytime, to their own disgust and that of others, until finally they expectorate a round piece of hard muco-pus, with the scab from the ulcer. The hawking is often so great that it leads to vomiting, and the symptom itself is a very annoying one. In a similar accidental manner as Dr. F., Dr. Hugo Engel discovered that Jensen's pepsin, if regularly used in divided doses (10 to 15 grains 3 to 4 times daily), especially if combined with muriate of ammonia (20 grains 3 to 4 times per diem), and with powdered extract of liquorice

(same dose as the muriate), to improve the taste, is almost a specific in the complaint spoken of. Only one must be careful to obtain the genuine Jensen's pepsin, there being many similar but worthless preparations in the market, and they are substituted but too often for the genuine article on account of their great cheapness. The tablets of Jensen's pepsin are well adapted for the purpose indicated, and may be taken separately from the sal ammoniac. In that case the aromatic powder may be omitted.

TREATMENT OF BLENNORRHAGIC CYSTITIS.—Desnos has arrived at the following conclusions after trying different modes of treatment :

1. Blennorrhagic cystitis attacks the neck of the bladder ; it is always connected with an inflammation of the deep portion of the urethra, but such urethritis alone can not give rise to all the symptoms of cystitis.

2. The frequent micturition which occurs in the beginning of blennorrhœa is of too short duration to be mistaken for a positive symptom of cystitis, especially in the absence of other symptoms.

3. In chronic cases the differential diagnosis between blennorrhagic and tuberculous cystitis is generally impossible when the former follows an old blennorrhœa.

4. A number of cases known as cystalgia, or neuralgia of the neck of the bladder, are simply partly cured cases of blennorrhagic cystitis ; a painful sensation commonly persists in such cases.

5. The treatment of acute cystitis by emollients is generally fruitless ; the injection of solution of nitrate of silver (one in fifty to one in ten) produces a sharp reaction at first, but rapid improvement follows.

6. In chronic cases irrigation of the bladder is of little benefit and can excite fresh inflammation ; general treatment is useful, but local treatment applied to the neck of the bladder is indispensable.

7. Bichloride of mercury solution, one in two hundred and fifty to one in five hundred, gives sharp and prolonged pain, and its beneficial effects are less prompt than those of nitrate of silver.

8. Iodoform in oil, or in suspension in glycerine, is not painful ; its effects, although good, are slow and uncertain.

9. Hydrochlorate of cocaine relieves pain in the bladder for a short time ; applied to the neck of the bladder just

just before the introduction of a caustic, it lessens greatly the painful effects of cauterization.

10. Nitrate of silver, in solutions of one-fiftieth to one-tenth, in injections of from ten drops to twenty-five or thirty, the author considers the most efficient, safe and rapid means of treatment.—*Bulletin Général de Thérapeutique*.

“THE NEW SURGERY.”—Within a few years the practice of surgery has undergone a great change; indeed, it has almost been revolutionized. The profuse suppuration of the old days, with the “laudable pus” so gladly welcomed, is superseded by primary union. Erysipelas, pyæmia and septicæmia no more close the wards and prevent operative interference. The fear of opening the joints belong to the past. Within the month I have seen the knee-joint opened, washed out and the broken patella wired with prompt union and restored function. Complicated compound fractures are dressed and left untouched for a month, with the result of good union. The peritoneal cavity is opened as a diagnostic measure, large tumors dissected out and segments of the intestine excised. Operations not before attempted are now aggressively and confidently executed, and that, too, in the atmosphere of large general hospitals. Notwithstanding this, there are members of the profession who declare that they do not believe in “the bug theory,” and inveigh against what they are pleased to call the tyranny of the germs. But that does not explain the great improvement in wound-treatment and its splendid results. Neither does “the gospel of cleanliness” detract in any degree from the value of the antiseptic method, but is only the substitution of one essential part for the entire system. The principles of the antiseptic system are absolutely essential in obtaining these results, though the manner of their application in respect to details may vary with the fancy of various operators. The introduction of the antiseptic system into surgical, gynecological and obstetrical practice marks the greatest advance in medicine of the century—excepting, of course, anæsthesia. The system attains an exalted degree of cleanliness, a degree which can only be certainly and uniformly attained by the painstaking application of antiseptic methods. To be equipped for antiseptic work and familiar with antiseptic methods is the plain duty of every practitioner who does surgical practice.—*Dr. L. S. McMurty in Southwestern Med. Gazette*.

SEWAGE DISPOSAL.—The porous carbon process, inaugurated some short time ago at Southampton, has, up to the present, been a decided success. Reservoirs have been constructed, where the sewage of some thirteen thousand of the population is collected. Here it is mixed with a small proportion of porous carbon, which precipitates the solid matter and gives an effluent water so clear, colorless and inodorous that some people have been courageous enough to taste it. The merit of the mineral powder is that it is rich in available iron, alumina and carbon, and it is singularly effective as a precipitant. Besides its chemical attributes, it possesses also the physical one of extreme porosity, which makes the oxygenation of organic matters held in suspension very rapid. The importance of this point is that, unlike sewage treated with lime, there is no secondary decomposition set up to pollute the rivers into which the effluent water is poured. From the reservoirs the residuum of the sewage is conveyed, by the use of Thone's pneumatic ejector, through pipes to the sanitary works, about a mile distant from the tanks, where it is mixed with the town sweepings and refuse, producing a manure for which there is a ready sale to the farmers at 2s. and 6d. a ton. Any of the sludge that can not be got rid of is destroyed in "destructors," which have been erected on the works.—*Am. Prac. and News.*

WHY DO BEES AND WASPS STING?—Their weapons often serve to protect them from their enemies, but with bees, especially the honey or hive bees, at the approach of winter, the drones or males are no longer of any use, and are killed off by the stings of the workers, to save the stores of honey they would otherwise consume. With many of the wasps their stings are food preservers. The large wasps which make their holes in the ground, and some bees, like the Carpenter bees, which cut circular holes in boards or other wood, deposit an egg in one of these holes, place food for the grub that will hatch from this egg to feed upon, and when this grub has made its growth, it goes into the chrysalis state, and in time comes out a perfect bee, or wasp, as it may be. But you will ask, "What has this to do with the sting?" A great deal. If the caterpillar or other insect, intended as food for the young bee or wasp, were dead when stored away, it would decay and be useless. The effect of the poison of the sting is to keep it in a semi-torpid existence,

alive, but still dormant, and thus preserve the food in proper condition to be eaten by the grub of the bee or wasp. In this respect we can see that the sting plays a very useful part, but when the sting is employed upon ourselves, we fail to see what good end is accomplished. Even when a bee-keeper is doing his best for the comfort and welfare of his bees, they will often turn upon and sting him most needlessly and painfully.—*American Agriculturist for July.*

BINOXIDE OF MANGANESE IN AMENORRHOEA.—The effects of manganese in stimulating the menstrual flow, when its suspension is not due to pregnancy, have been fairly established by trials extending over nearly eighteen months. In the articles contributed to the medical journals on the subject, at the beginning of last year, the permanganate and the binoxide were both mentioned as possessing emmenagogue properties, but experiments have so far been made almost exclusively with the permanganate. In consequence, however, of certain disadvantages which are apt to attend the administration of this salt, unless several conditions are complied with, aided, perhaps, by theoretical notions as to the transformation which so unstable a body may undergo immediately after being swallowed, the binoxide, which is equally potent and less irritating, has latterly come into favor. Manganic dioxide, it is true, has been described as possessing no therapeutical value; but it is conceivable that if its effects are limited, even approximately, to the menstrual function, they may have escaped the attention of observers, especially if, as is not improbable, their investigations were confined to men or animals.—*British Medical Journal.*

GYMNEMIC ACID.—(Extract from a paper read at a meeting of the Nilgiri Natural History Society, at Octacamund, India, by David Hooper, on "An Examination of the Leaves of the *Gymnema Sylvestris*.") This is a plant growing in the Deccan Peninsula, in other places in India, and also in Africa. The powdered root has for a long time been known among the Hindus as a remedy for snake-bites. It is applied locally and taken in the form of a decoction internally. The most curious property of this plant is its effect upon the sense of taste. When the leaves are chewed, all power to appreciate the taste of sugar ceases. Powdered sugar tastes like so much sand. When an insufficient quantity of the leaves are chewed, the sugar has a saltish taste. In ginger-

bread the taste of the sugar disappears and that of the ginger alone is detected. A sweet orange tastes like a lime. Sulphate of quinine tastes like so much chalk. The effect seems to last for several hours. The active principle of the leaves Mr. Hooper calls gymnemic acid. It does not affect the power of tasting sour, saline or astringent substances. He proposes to investigate its medicinal properties — *Contributed by Professor Maurice Perkins, M.D., Union University, Schenectady.*

ALOPECIA AREATA.—Schachmann (*Annales de Derm. et Syph.*) advocates strongly the treatment adopted by Vidal in this affection. A vesicatory is applied as large as the patch itself and kept on until the formation of blisters. The skin is then removed, and the wound dressed in the ordinary way. Generally, about the end of three days the skin is dry, and a new blister must then be applied. This is to be repeated three, four, six, or even ten times, until colored hair begins to grow. The rest of the head is in the meantime rubbed, morning and evening, with the following lotion:—

Ry	Essentiæ terebinthinæ,	2	3
	Ammoniæ,	1 ½	3
	Aquæ,	10	3

The procedure is certainly rather severe, but seems, from the cases which he details, to be effectual, and more rapid than those usually adopted.—*Medical Chronicle.*

TWENTY-ONE PROFESSORS.—About this time look out for a shower of college circulars, denominated “Announcements;” and when twenty-one professors constitute a faculty, as one advertisement has it, the inference is that a new dodge is about to captivate the uninitiated. Besides the regular quota of the time-honored faculty, *specialists* have been added *ad nauseam*. Now we see the Professor of Microscopy, the Venerealist, the Chiropodist, the Pulmonist, the Rhinologist, the Oculist, the Dermatologist, the Neurologist, the Bacteriologist and the Umbilicologist—the latter to lecture twice during a term of twenty weeks. A rival college will next year proclaim a faculty of forty, carrying specialism to extremes, the venereal chair being subdivided so that at least six chairs will be assigned to the penile organ, the last one having only the prepuce to lecture upon.—*Exchange.*

At a recent meeting of the Physiological Society of Berlin, it was stated that when the bee has filled the cell either with pure honey or a mixture of pollen dough and honey, and has completed the lid, a drop of formic acid obtained from the poison-bag connected with the sting is added to the honey by perforating the lid with the sting. Numerous experiments show that this formic acid preserves honey and every other solution from fermentation. If this be well established, it will show that the sting and the poison apparatus of the bees has a further purpose than that of a defensive or offensive weapon. Another interesting fact suggests itself in connection with this. So far as is known, most of the insects that have stinging apparatus similar to that of the bee are collectors and storers of honey.—*American Druggist*.

TO PREVENT MAMMARY ABSCESS.—Although Dr. Goodell ridicules the idea of aborting mammary abscesses, which he does not think can be done, yet Mr. Miall (*British Medical Journal*) says that when mammary abscess is on the point of forming, he has frequently seen all the symptoms rapidly disappear in a few hours, under the influence of fomentations with hot water and carbonate of ammonia. He uses an ounce of the carbonate in a pint of water, and when solution is accomplished the temperature of the fluid will be hardly too high for fomentation to be commenced, with cloths dipped in the liquid. He applies them for from half an hour to two hours, at the same time protecting the nipples. He has often had immediate relief, and seldom requires to make more than three applications.

SOOTHING MIXTURE FOR CONSUMPTION.—

R _x	Syrup liquorice root,	℥ j
	Aromatic syrup rhubarb,	℥ ss
	Fluid extract of opium,	℥ j
	Liquor ammon. acetat,	℥ v M.

Sig.—Shake well. Dose.—A tablespoonful every two or three hours.

Patients become very fond of this mixture, and it in no wise interferes with the stomach or appetite. Should constipation ensue, it is easily overcome by an occasional dose of comp. liquorice powder.—*J. B. Johnson, in Med. and Surg. Reporter*.

THE INFLUENCE OF THE BERGEON TREATMENT ON THE INFECTIOUSNESS OF PHTHISIS.—At the recent Congrès des délégués des sociétés savantes, as we learn from our Paris correspondent, M. Lamallerée, after giving it as his opinion that the Bergeon method of treatment was inefficient in the cavernous stage of phthisis, although very useful in other stages, made the important statement that, whereas he had succeeded in communicating tuberculosis to chickens by making them swallow the sputa of phthisical patients, he had not been able to infect them when he used sputa from persons who were under the Bergeon treatment at the time.—*N. Y. Medical Journal*.

GAS ENEMATA.—The truth about the gas treatment of phthisis is gradually being threshed out, and it begins to look as if the yield per acre was scarcely worth the trouble of harvesting. Dr. Bruen, in whose wards the method has been most extensively tried, tells me that in about one hundred cases two or three only have been benefited. A majority of the patients who at first did so well have relapsed while under treatment, and are as bad as before its use. At the University Hospital, Dr. Griffith has been making careful observations. The results are practically negative.—*Dr. William Osler, Canada Medical and Surgical Journal, June, 1887*.

TREATMENT OF WHOOPING-COUGH BY ANTIPYRIN.—Sonnenberg (*Deutsch. Med. Woch.*) recommends antipyrin as the best remedy in whooping-cough. He has used it in seventy cases, and asserts that it surpasses in efficacy and utility all other remedies. He gives one-seventh of a grain to very young children, and gradually increases the dose according to the age of the child. To adults he gives fifteen grains. The medicine is administered three times daily, and sometimes once during the night.—*Medical Chronicle*.

IODOFORM IN HEART DISEASE.—About a grain in four pills, one to be taken every two hours, has rapidly dissipated the functional derangements dependent on valvular disease. The experimental results obtained in dogs completely concur with those furnished by clinical experimentation, in demonstrating that in dogs iodoform retards cardiac contraction, and this delay increases the total duration of each cardiac cycle, and also the efficiency of the systole.—*Am. Prac. and News*.

Book Notices

A SYSTEM OF GYNECOLOGY. By American Authors. Edited by Matthew D. Mann, A.M., M.D., Professor of Obstetrics and Gynecology in the Medical Department of the University of Buffalo, N. Y. Volume I. Illustrated with Three Colored Plates and Two Hundred and One Engravings on Wood. 8vo. Pp. 789. Leather. Philadelphia: Lea Brothers & Co.; Cincinnati: R. Clarke & Co.

In our notice of the *System of Practical Medicine by American Authors* we made the following statement: "It is a work of which the profession of this country can feel proud. Written exclusively by American physicians who are acquainted with all the varieties of climate in the United States, the character of the soil, the manners and customs of the people, etc., it is peculiarly adapted to the wants of American practitioners of medicine, and it seems to us that every one of them would desire to have it." Every word thus expressed in regard to the *American System of Practical Medicine* is applicable to the *System of Gynecology by American Authors*, which we desire now to bring to the attention of our readers. It, like the other, has been written exclusively by American physicians who are acquainted with all the characteristics of American people—who are well informed in regard to the peculiarities of American women, their manner and customs, modes of living, etc. Our country differs from all other civilized and enlightened countries, in consequence of its being a new country and having a republican form of government, which facts have entailed peculiar manners, customs and modes of living, which, of course, give a peculiar stamp to the physical organism, which, in turn, must modify greatly the character of the diseases of the country, especially female diseases. Besides this, the United States, in consequence of its great extent of territory, has nearly every variety of climate and of soil also. But its iron bands uniting to each other all the parts of this great domain, all the people are neighbors to each other, and the gynecologists in the various great cities treat daily those who reside in the sunny climate of the South and those who are exposed to the cold, wintry months of the North. In the office of the same gynecologist, in this

country, each one waiting for her turn to consult him, will be found patients whose homes are hundreds of miles apart. In the countries of Europe, on the other hand, the *clientele* of a physician are largely such whose circumstances of life differ only as they are made to vary by the differences in the amount of wealth possessed by each one, which permits one to live at ease and in luxury, while, with another, all the sufferings and struggles of poverty have to be endured. Does not the American physician, therefore, in gynecology, have experience which does not fall to the lot of the physician of any other country, and will not, consequently, a work written by a number of American physicians who have been practicing for many years under his peculiar circumstances be especially adapted to his wants? We can not see how any other than a medical man who has treated female diseases in patients whose circumstances have differed not only with regard to wealth, but also with respect to soil and climate, can prepare a work upon gynecology specially suited for a physician of this country.

Two large octavo volumes of not far from a thousand pages each will compose this really magnificent work. Some twenty-eight well known and distinguished gynecologists form the corps of contributors. Among them we notice the names of Drs. Fordyce Barker, T. Gaillard Thomas, Edward W. Jenks, A. Reeves Jackson, A. D. Rockwell, William Goodell, Robert Battey, Geo. J. Engelman, Wm. T. Lusk, etc. The first volume, which we have on our table, contains some fifteen articles, among which, the first one, is a most interesting one, containing a large amount of very valuable information, and, in consequence, may be regarded as worth the price of the volume, entitled "A Historical Sketch of American Gynecology," contributed by Dr. Edward W. Jenks, of Detroit. From this article we learn that the first journal published in this country devoted to obstetrics and gynecology appeared in 1868, edited by Dr. B. F. Dawson, who was afterward succeeded by its present able editor, Dr. Munde. It first appeared as a quarterly. We remember the first number of this journal well. For some time, at the solicitation of Dr. Dawson, we offered it to subscribers in connection with the MEDICAL NEWS. Dr. Dawson also consulted us in regard to the number of copies he should issue quarterly, until the journal should become established.

As every practicing physician is called upon to treat dis-

eases of females, and as they constitute a class to which the family physician has to give attention and can not pass them all over to a specialist, as with diseases of the eye, we do not know of a work in any department of medicine that we would so strongly recommend medical men generally purchasing and placing upon the shelves of their library as this one.

Editorial.

GYNCOLOGICAL MEDICINE.—In the first volume of the *American System of Gynecology*, in process of publication by Lea Bros. & Co., of Philadelphia, is a highly interesting article by Dr. Edward W. Jenks, of Detroit, entitled a "Historical Sketch of American Gynecology." In this article, on page 18, it is stated that the physicians under the Ptolemies were required to regulate their practice according to certain books, one of which was devoted to diseases of women. These books were regarded as sacred. There was, undoubtedly, a large amount of knowledge in those days recorded in books, for the famous Alexandrian library which was destroyed, falling a prey to Saracen fury, contained over 600,000 volumes. The works of Hippocrates, which were in existence at that time, escaped destruction and have come down to us, but it is probable that there were other works upon medicine embracing the subjects of midwifery and female diseases of no less merit.

It is stated that, in the language of Adams, the commentator upon the works of Hippocrates, "these works furnish the most indubitable proofs that the obstetric art had been cultivated with most extraordinary ability at an early period. But in regard to gynecology proper, these works are, however, disappointing to him who has been led to admire and revere the philosopher of Cos through a study of his works on general medicine. It sometimes occurs to us, when perusing the writings of the philosophers of antiquity, that the thinkers who lived previous to the Christian Era were men of stronger and more vigorous minds than those of modern times; but, in olden times, superstitions were rife, and these always tend to blighten the faculties, and, upon subjects in which they are involved, make fools of the wisest. Although with the ancients human life was held at a low rate, yet superstition forbade dissections for the purpose of anatomical

study. The result of anatomical ignorance was the holding of most crude notions in regard to the organs of the body and the formation of a human being. It is most astonishing on reading Celsus, a medical writer in the early years of the Christian Era, the practical knowledge displayed in the treatment of many diseases. In fact, not a little found in his work would be supposed by many to have originated from the investigations of very modern times.

Hippocrates held some very absurd notions in regard to conception. When a woman had failed to conceive, in order to test her fruitfulness, she was wrapped in blankets and fumigated from beneath; if the scent passed through her body to the nostrils and mouth, then it was known she was capable of conceiving! But if there had been in his day the knowledge of anatomy which would have resulted from frequent dissections, and with it an intelligent notion of physiology and pathology which would have followed, it is hardly probable that such an absurd theory in regard to the procreative functions would have ever emanated from his pen.

Dr. Jenks mentions the fact of the belief that the speculum was not unknown in the first century of the Christian Era, relating the occurrence, which many of our readers have heard, of the finding of two specula, among other surgical instruments, in the excavations of Pompeii and Herculaneum, which had been buried under the ashes and lava from Mt. Vesuvius since A. D. 79. The speculum was rediscovered in 1816 by Reçamier. What a calamity would befall the modern gynecologist if this little instrument should take its place again among the paraphernalia of the lost arts. His occupation would be gone; for what can a gynecologist do without a speculum? But there is little danger of its use being forgotten, for it is too actively employed for that.

But we have not space nor time to keep along with Dr. Jenks in his history of gynecology, notwithstanding its intense interest, from the beginning of the Christian Era to the present time. We will, therefore, glean only a few items belonging to our own times, or not further back than the days of Ephraim McDowell. McDowell, it is stated, was born in the year 1771, in Virginia. He accompanied his father's family to Kentucky in 1783. He attended medical lectures in Edinburgh, Scotland, during the sessions of 1793 and 1794; but there is no record of his ever having graduated. He took a private course in surgery under Mr. John Bell, the famous surgeon.

McDowell is said to be the first surgeon who performed the operation of ovariectomy. The subject was a Mrs. Crawford, who lived sixty miles from Danville, Ky., where McDowell practiced medicine. She was forty-seven years of age when operated upon, and traveled from her home to the doctor's residence on horseback. She was operated upon in December, 1809, and at the end of twenty-five days returned to her home, where she lived for thirty-two more years, during which she enjoyed for the most part excellent health, and died at length in her seventy-ninth year of age. Dr. Jenks calls attention to the fact that this first operation for the removal of an ovarian tumor was performed before the days of anesthesia, and that Dr. McDowell had none of the advantages of the trained assistants and perfect instruments which are now deemed so essential to the success of this operation.

Dr. McDowell's delay in reporting this most heroic case contrasts most singularly with the practice of latter-day saints who, when they prepare themselves to amputate a little finger, take along with them a newspaper reporter to write it up for the daily papers. Instead of immediately giving a description of his, at that time, most wonderful operation successfully performed, he waited for seven years, during which time he successfully performed two other ovariectomies. His report of these three cases appeared in the October issue, 1816, of the *Eclectic Repertory and Analytical Review*. Dr. Jenks says that it was a document remarkable for its brevity, that portion of it covering the case which has made his name immortal, and which has demonstrated the practicability of a procedure which more than any other has lengthened the average of woman's life and diminished the sum of her sorrow, not occupying more space than an octavo page.

THE AMERICAN MEDICAL ASSOCIATION.—The *American Lancet* is of the opinion that the next meeting of the American Medical Association should have been held in Boston instead of Cincinnati, although the medical fraternity of Boston did not extend it an invitation. We really do not know why it prefers Boston to the Queen City, unless it be that, the Association having held several of its last meetings west of the Alleghenies, it is of the opinion that it is now time it should be making its appearance east of them. The fact is, however, that since it has become demonstrated that

the Eastern men can not "run" the Association, they are disposed to give it the "cold shoulder." Still, we presume, as the Association now pays its own bills, and as it is no longer necessary, as it used to be, for the members of the profession of the city in which it proposes to meet to be taxed from \$5 to \$100 each, in order to pay its expenses, it is at liberty to meet in any city it may feel disposed.

The *Lancet* thinks that if it would hold a meeting in Boston, it would afford the New England physicians an opportunity to make its acquaintance. But if they do not care enough about the Association to come West for an introduction, why tax Western physicians with large railroad expenditures in order to force an acquaintance upon them? Let the Association keep meeting in the West, and our Eastern brethren by and by will discover that they alone do not constitute the profession of this country.

NEW QUESTIONS.—Under this heading the *American Drug Clerk's Journal* prints a number of queries which we copy for the benefit of such medical and pharmaceutical students as may be disposed to study them:

1. Define specific gravity.
2. What is taken as the standard of specific gravity for solids and liquids?
3. How is the specific gravity of a solid heavier than water found?
4. How can you determine the specific gravity of a solid lighter than water?
5. In what three different conditions does matter exist?
6. Define a simple molecule.
7. Define a compound molecule.
8. Define a binary molecule and a tertiary molecule.
9. How are binary molecules named; also, how are ternary molecules named?
10. What is an acid?
11. What is a base?
12. What is a salt?
13. What compounds are formed when an acid acts upon a base?
14. Explain what is meant by the acidity of a base.
15. Explain what is meant by *basicity of an acid*.
16. Explain what is meant by the terms ortho and meta acids.

act; it shall furnish to the county clerks of the several counties a list of all persons receiving certificates. In selecting places to hold its meetings, it shall, as far as is reasonable, accommodate applicants residing in different sections of the State, and due notice shall be published of all its meetings for examination. Certificates shall be signed by all the members of the Board, and the secretary of the Board shall receive from the applicant a fee of five (5) dollars for each certificate issued to such graduate or licentiate. Graduates or licentiates in midwifery to pay the sum of two (2) dollars for each certificate. All such fees for certificates shall be paid by the secretary into the treasury of the Board.

SEC. 3. The verification of the diploma shall consist in the affidavit of the holder and applicant that he is the lawful possessor of the same, and that he is the person therein named. Such affidavit may be taken before any person authorized to administer oaths, and the same shall be attested under the hand and official seal of such officer, if he have a seal; and any person swearing falsely shall be deemed guilty of perjury, and punished accordingly. Graduates may present their diplomas and affidavits as provided in this act, by letter or by proxy, and the State Board of Health shall issue its certificates the same as though the owner of the diploma were present.

SEC. 4. All examinations of persons not graduates or licentiates shall be made directly by the Board, and the certificates given by the Board shall authorize the possessor to practice medicine and surgery in the State of Illinois.

SEC. 5. Every person holding a certificate from the State Board of Health shall have it recorded in the office of the clerk of the county in which he resides, within three months from its date, and the date of recording shall be indorsed thereon. Until such certificate is recorded as herein provided, the holder thereof shall not exercise any of the rights or privileges conferred therein to practice medicine. Any person removing to another county to practice shall record the certificate in like manner, in the county to which he removes, and the holder of the certificate shall pay to the county clerk the usual fees for making the record.

SEC. 6. The county clerk shall keep, in a book provided for the purpose, a complete list of the certificates recorded by him, with the date of the issue of the certificate. If the certificate be based on a diploma or license, he shall record the name of the medical institution conferring it and the date when conferred. The register of the county clerk shall be open to public inspection during business hours.

SEC. 7. The fees for examination of non-graduates shall be as follows: Twenty (20) dollars for an examination in medicines and surgery; ten (10) dollars for an examination in midwifery only; and said fees shall be paid into the treasury of the Board. If an applicant fails to pass said examination, his or her fee shall be returned. Upon successfully passing the examination the certificate of the Board shall be issued to the applicant without further charge.

SEC. 8. Examinations may be made in whole or in part in writing, and shall be of an elementary and practical character, but sufficiently strict to test the qualifications of the candidate as a practitioner.

SEC. 9. The State Board of Health may refuse to issue the certificates provided for in Section 2 to individuals guilty of unprofessional or dishonorable conduct, and it may revoke such certificates for like causes. In all cases of refusal or revocation the applicant may appeal to the Governor, who may affirm or overrule the decision of the Board, and this decision shall be final.

SEC. 10. Any person shall be regarded as practicing medicine, within the meaning of this act, who shall treat, operate on, or prescribe for, any

physical ailment of another. But nothing in this act shall be construed to prohibit service in cases of emergency, or the domestic administration of family remedies. And this act shall not be applied to commissioned surgeons of the United States Army, Navy or Marine Hospital in the discharge of their official duties.

SEC. 11. Any itinerant vendor of any drug, nostrum, ointment or appliances of any kind, intended for the treatment of disease or injury, or who shall, by writing or printing or any other method, profess to cure or treat disease or deformity, by any drug, nostrum, manipulation or other expedient, shall pay a license of one hundred (100) dollars per month into the treasury of the Board, to be collected by the State Board of Health, in the name of the people of the State of Illinois for the use of the said Board of Health. And it shall be lawful for the State Board of Health to issue such license on application made to the State Board of Health, such license to be signed by the president of the Board, and attested by the secretary of the Board, with the seal of the Board. Any such itinerant vendor who shall vend or sell any such drug, nostrum, ointment or appliance without having a license so to do, shall, if found guilty, be fined in any sum not less than one hundred dollars, and not exceeding two hundred dollars for each offense, to be recovered in an action of debt before any court of competent jurisdiction. But such Board may, for sufficient cause, refuse such license.

SEC. 12. Any person practicing medicine or surgery in the State without the certificate issued by this Board in compliance with the provisions of this act, shall for each and every instance of such practice forfeit and pay to the people of the State of Illinois for the use of the State Board of Health the sum of one hundred (100) dollars for the first offense, and two hundred (200) dollars for each subsequent offense, the same to be recovered in an action of debt before any court of competent jurisdiction, and any person filing or attempting to file as his own the diploma or certificate of another, or a forged affidavit of identification, shall be guilty of a felony, and upon conviction, shall be subject to such fine and imprisonment as are made and provided by the statutes of the State for the crime of forgery: *Provided*, that all persons who have been practicing medicine continuously for ten years within this State, prior to the taking effect of the act to which this is an amendment, and who have not, under said original act, obtained a certificate from said Board of Health to practice medicine in this State, shall upon proper application to said Board of Health receive such certificate, unless it shall be ascertained and determined by said Board of Health that the person so applying for a certificate is of immoral character, or guilty of unprofessional or dishonorable conduct, in which case said Board of Health may reject such application. *And, provided*, that such application for a certificate shall be made within six months after the taking effect of this act, and all persons holding a certificate on account of ten years' practice shall be subject to all the requirements and discipline of this act, and the act to which this is an amendment, in regard to their future conduct in the practice of medicine the same as all persons holding certificates, and all persons not having applied for or received such certificate within six months after the taking effect of this act, and all persons whose applications have for the causes herein named been rejected or certificates revoked, shall, if they shall practice medicine, be deemed guilty of practicing in violation of law, and shall suffer the penalties herein provided.

SEC. 13. Upon the conviction of either of the offenses mentioned in this act, the court shall, as part of the judgment, order that the defendant be committed to the common jail of the county until the fine and costs are paid, and upon failure to pay the same immediately, the defendant shall be committed under said order. *Provided*, that either party may appeal in the same time and manner as appeals may be taken in other cases, except that

where an appeal is prayed in behalf of the people, no appeal bond shall be required to be filed, whether the appeal be from a justice of the peace, or from the county or circuit court, or from the appellate court. But it shall be sufficient, in behalf of the people of the State of Illinois, for the use of the State Board of Health, to pay an appeal, and thereupon appeal may be had without bond or security.

SEC 14. All acts and parts of acts inconsistent or in conflict with this act, are hereby repealed.

THE *Pacific Record of Medicine and Surgery* says that the medical student at his graduation receives in effect the following valedictory: "We send you out into the by-ways of life fresh from your *Alma Mater*, with all the aspirations of the Christian soldier, to do among the poor and suffering the work of our common Master, seeking no higher reward than the consciousness of work faithfully performed in his service, and we will meet you at the threshold of your labor with our free dispensaries, and paralyze all your efforts for your own advancement, in order to enhance the reputation of our college. We will burden you with the effect of our 'free service,' and leave you to struggle as best you may with the necessity of earning your daily bread." Severe, but after all quite true. Free dispensaries are always a curse to the profession of any city, unless they contribute to the advancement of all by their contributions to medical knowledge, or by their efficiency in training medical students and medical men.—*Ex.*

DR. JOHN FULTON died at his home in Toronto, May 15th, aged fifty years. For seventeen years he had been editor and publisher of the *Canada Lancet*. He had been unusually successful in the financial portion of his work, being able to leave his children one hundred and fifty thousand dollars. He was a man of industry, tact and force. Every day told.

PERSONS wet by salt water do not take cold so readily as those wet with fresh water. It is claimed that the explanation of this is, that the loss of heat by the evaporation of water is supplied by the heat given up by the crystallization of salt on the surface of the body. There being no loss of surface heat, there can be no taking cold.

ANAPHRODISIAC EFFECTS OF COFFEE.—Dupuy has observed the frequent occurrence of impotence in those who

drink large quantities of strong coffee (five to six glasses daily), and has noted a return of virile power on abstaining from coffee, with reappearance of impotence on its resumption.—*Medical Chronicle*.

THE RIO CHEMICAL CO.'S PREPARATIONS.—We call attention to the preparations of this company for the reason that we believe they are really very valuable, being efficient for the purposes for which they are recommended. The concentrated extract of *pinus canadensis*, which they prepare, is a preparation that should be in the office of every physician, whether he resides in a city and writes all of his prescriptions to be compounded by an apothecary, or lives in the country and supplies whatever remedies his patients may need. It is a most powerful non alcoholic vegetable astringent in a fluid form. It is properly employed in all cases in which an astringent is indicated. It can be used in cases in which a mineral astringent can not be used. There is nothing caustic or irritating about it. In consequence of its powerful astringency it has frequently to be diluted. As it mixes with water without difficulty, it can be brought to any strength required. As a topical agent, employed either by a brush to a limited space or diluted and employed as an injection, it is a very superior remedy in many affections of the vagina and os uteri. In ulceration of the os it has been mentioned in the highest praise, particularly by Dr. J. Marion Sims. From our experience with it we feel sure that if once employed by a physician, he will always afterward keep a few ounces on hand for immediate use when wanted.

The Celerina of this house will be found an excellent nerve tonic, stimulant and anti-spasmodic.

FOR SALE.—Physicians and students of medicine, by addressing the office of the MEDICAL NEWS, can purchase at reduced rates Pepper's "American System of Practice;" "The Reference Handbook of the Medical Sciences," edited by Alfred Buck; "Cyclopedia of Obstetrics and Gynecology," by Dr. A. Charpentier, translated by Egbert H. Grandin, and published by Wm. Wood & Co. These works can not be bought at bookstores—they are only to be had by subscription. Other late works can be had by addressing this office at lower rates than the usual price. Also several pocket-cases of instruments have been left with us for sale.

THE CINCINNATI MEDICAL NEWS.

VOL. XX. No. 236. }
Old Series.

AUGUST, 1887.

} VOL. XVI. No. 8.
New Series.

Original Contributions.

Plastic Operation for Cicatricial Contraction of Finger and Palm.

BY F. W. LANGDON, M. D., CINCINNATI, O.

IN September, 1885, I was consulted by Mr. —, respecting a deformity of his son's hand, due to contraction of a cicatrix of three years' standing. The patient was a boy aged twelve, well developed and nourished; and the injury which led to the cicatrization was caused by friction of a rope running in the pulley of a patent hay-fork.

The accident stripped the skin from the greater portion of the palmar surface of the left hand, and injured the fourth digit so badly that it was amputated at the time by the attending physician. Recovery ensued by extensive cicatrization of the palm and fingers, and when the patient presented himself to me, three years later, the hand was practically useless, owing to the third digit being bound to the palm by a dense cicatrix, which prohibited all movements of opening or closing the hand. This cicatrix occupied the palmar surface of the middle finger, its attachment extending from the base of the third phalanx to nearly the middle of the palm; and its thickness and density were such as to lead to the suspicion that it included the flexor tendons in its substance—which, fortunately, was not the case. The finger was in a permanently flexed position, its tip nearly touching the palm.

I proposed division of the cicatrix, followed by a trans-

plantation of normal skin, which was readily acceded to by the patient and his father, who were both anxious for anything that would restore even a limited amount of usefulness to the hand.

Operated under chloroform, assisted by Dr. Konn B. Sayres; present, Dr. E. S. McKee and Messrs. Stein and Jones, medical students. The cicatrix was divided from the normal skin at sides and end of finger, after which the finger was extended fully, causing the cicatrix to retract to its base, and leaving exposed the sheath of the flexor tendons. The bared surface was dressed with vaseline on absorbent cotton, and the hand put on a straight splint, with finger fully extended.

The dressings were not disturbed for three days, at which time a healthy granulating surface presented, and on this was implanted a flap of skin from over the deltoid muscle (removed after a hypodermic injection of cocaine). This flap was dusted freely after implantation with dry boracic acid, and retained in place by adhesive strapping. It adhered completely, and patient was allowed to return home in a week, with instructions to keep finger on an extension splint *at night* for several months to prevent any tendency which might exist to re-contraction. The finger was to be used as freely as desired during the day, and regular passive motion employed to increase mobility of joints. The result was excellent, and for a time bid fair to be nearly perfect.

The patient writes me, nearly two years after the operation, that partly owing to his neglect of the splint, the old tendency to contraction has reappeared, and that the cicatrix in the palm interferes somewhat with use of the hand. He has, however, the use of the finger in picking up objects, and can otherwise use the hand in grasping, which was, before the operation, an impossibility.

A feature of especial interest in the case was the complete union of the flap, considering its size—about one by two inches. This favorable result I ascribe largely to the fact that it was not transplanted until a healthy granulating surface had appeared.

Should the cicatrix in palm still prove troublesome after a fair trial of passive motion and frequent inunctions of olive oil or vaseline, as I have directed, I shall advise its complete removal and replacement with transplanted normal skin, as was done in the case of the finger.

Paralysis of Accommodation.

BY W. R. AMICK, M. D., CINCINNATI, O.

THIS is a form of paralysis of the ciliary muscle, so that the necessary changes can not be produced in the lens for vision at different distances. With this there is generally paralysis of the sphincter muscle of the iris, so that the pupil is dilated. It is characterized by a removal of the near point and a loss of the range of vision.

If the paralysis is complete, the vision may be affected in various ways, depending on the natural refraction of the eye. Vision will be distinct only at or near the far point. In myopes of a high degree the far point may be sufficiently near for the eye to see and recognize small objects. In an emmetropic eye objects will be seen clearly in the distance, while those that are near will be more or less indistinct. In the hypermetropic eye, those that have to use their accommodation in order to see clearly in the distance, all objects will be indistinct. The reasons for these various conditions are self-evident to those who understand the mechanism of the accommodation.

A paralysis of the muscles of accommodation is a condition produced by some pathological state that has the same effect upon vision as the artificial condition that is developed by the use of mydriatics.

If we drop a solution of atropine or duboisine in the eye, in a short time we get their characteristic action in this organ, viz.: a loss of the power of accommodating the eye for different distances, and a dilatation of the pupil.

We do not propose to enter into any discussion, in this article, about the peculiar manner in which this condition is developed, whether by a paralysis of the sphincters, or by a stimulation of the sympathetic nerves or radiating muscular fibers. It is sufficient for us to know that this artificially produced condition has the same effect as paralysis, so far as its influence upon accommodation is concerned.

It is not impossible for a true paralysis of the accommodation to be due to cerebral disease, although this is not common, especially where but one eye is involved.

When, in addition to this, there is a paralysis of several of the ocular muscles, the cause may be central, or in the nerves or their sheaths.

Diphtheria, especially the epidemic variety, is often accompanied by a paralysis of the accommodation. "Where, however, the paresis of accommodation and the mydriasis are only partial symptoms of an affection extending to several muscles, there must be disease in the trunks or neurilemma of one or more nerves, or, as more frequently occurs, in the central organ. Among the affections of the latter are not only perceptible organic changes in certain portions of the brain or spinal medulla, but also less manifest alterations, such as those that occur in alcoholism, late in diabetes mellitus, in uræmia, in lead-poisoning, trichinosis and malarial fever."

It may be that the muscle, from some cause, has become unable to respond to the nerve impulse. This condition might be the result of inflammation and resulting atrophy, or the result of long-continued disuse, from functional disturbance or strabismus.

It may be developed in a rheumatic subject after exposure, or it may have a syphilitic origin and be caused by periostitis, a node, a tumor or from syphilitic neuritis.

W. B., *aet.* 32, presented himself for treatment on Sept. 7, 1885. An examination revealed a very decided dilatation of the right pupil, with paralysis of accommodation. The pupil would not respond to light. Vision was good in the distance, but required a plus spherical lens No. 16 for reading. Movements of the eye were normal, and followed the left eye in all directions. No congestion of any portion of the eye could be detected, either externally by inspection or internally with the ophthalmoscope. He stated that he had a specific infection at one time, but there had never been any external secondary manifestations. Occasionally he had pains of a rheumatic character, but not of the acute variety.

His health generally, and digestion at this time was not very good.

He was placed upon a tonic and alterative course of treatment, consisting of preparations of bark and bichloride of mercury. The dilatation of the pupil was overcome by the use of eserine, one-half grain in an ounce of water. One drop of this solution was placed in the eye morning and evening. This not only overcame the mydriasis, but also the relaxed condition of the accommodation. This was evident from the fact that after its effect had been obtained, on the sphincters of the iris and ciliary body, he could read ordinary print

about as easily as he could with the left eye. As the effect passed off and the pupil began to dilate, then the presbyopic condition for near objects would begin to develop.

Under treatment his condition improved generally until he stated that he "never felt better in his life."

Notwithstanding his improved condition the paralysis of accommodation and the mydriasis still persisted. Electricity was used, both the constant and interrupted currents, together with strychnia, potassium iodide, hydrargyrum protiodide, etc., with only one manifest effect upon the paralysis. This was shown by the fact that one drop of the eserine solution would last from twenty to twenty-four hours before the effect would be entirely gone. By effect, we mean that at the end of this time the pupil would be dilated and the accommodation relaxed so that reading or writing could not be accomplished with this eye. This was his condition in June, 1886, when I saw him last. Whether benefit would have resulted from a continuation of the treatment is a question which I would incline to answer in the negative.

I think that in this case we can safely say that we had an injury of the short root of the lenticular ganglion. This ganglion is located in the apex of the orbit, and is formed by three branches: one from the nasal nerve, called the long root, one from the third nerve, designated as the short root, and a small branch from the sympathetic. From the anterior portion of the ganglion a number of filaments are given off, known as the short ciliary nerves, which run forward between the sclerotic and choroid, and are distributed to the ciliary body and iris. The branch from the third nerve, that is, the short root of the lenticular ganglion, supplies the sphincters of both the ciliary body and iris with motor influence.

If this branch was injured so that it could not transmit the motor impulse to the ganglion, we would naturally expect exactly what we have in this case: viz., a paralysis of the sphincters in the ciliary body and iris.

In both the ciliary body and the iris we have two sets of muscles, one set counteracting the action of the other. In order to have normal vision, the radiating fibres must not exercise an undue amount of continued tension, nor *vice versa*. If, however, this state should exist, then the equilibrium is destroyed and harmony prevented.

The sphincter of the iris contracts the pupil and regulates

the rays of light admitted to the retina. The sphincter of the ciliary body contracts and relieves the tension on the zone of Zinn. Then the lens, by its own elasticity, increases its refractive power, lengthens its antero-posterior diameter and shortens its focus for parallel rays, but not for divergent ones.

In a normal condition there is no effort required on the part of the accommodative apparatus to focus parallel rays upon the fovea centralis. When the object is near, so that rays emanating from it strike the eye in a divergent manner, then the refractive power must be increased in order to maintain the focus at the same point. If we cut off the motor impulse from the circular muscles of these two organs, we destroy the equilibrium, because the radiating muscles receive their contracting power from the sympathetic system. The natural result of this condition is mydriasis and paralysis of accommodation.

The injury in this case was probably caused by a node pressing on the branch from the third nerve to the lenticular ganglion. The indications are that the nerve is organically involved, and is incapacitated for the performance of its function.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS, from the French, by Dr. Illowy,
Cincinnati, Ohio.

MILK DIET IN HEART DISEASES.—CLINICAL LECTURE BY PROF. PETER.

Milk diet will soon be recognized as an important agent in the treatment of maladies of the heart, like digitalis. Certain physicians, as soon as they recognize a valvular murmur, or other sign of cardiac disease, immediately order an exclusive milk diet. Evidently the milk diet has a number of effects; in fact, more than are usually believed. First, it has a diuretic effect, the natural physical consequence of which is to diminish vascular tension, and, consequently, the work of the heart. It is in this sense that it is hydraulically beneficial. It is beneficial in another way—dynamically, so to speak. That is an excellent method of treatment for the liver and kidneys undergoing sclerotic changes. Liver and kidneys which secrete less actively by reason of their vascular engorgement, under the influence of milk diet

regain a portion of their secretory activity. This more active secretion of bile and urine is another indirect means of vascular discharge, of diminution of arterial tension and, consequently, diminution of the work of the heart. Finally, it is not a matter of indifference to the liver and kidneys to be traversed by a blood containing the serum of milk; a topical salutary effect is exercised upon the tissues, hyperæmic, with a tendency to phlogosis, at least to atrophic proliferation. On the other hand, the milk diet is not without its utility for the stomach, which organ is put into a state of digestive impuissance by the passive hyperæmia affecting it.

For all these reasons the milk diet is beneficial, upon the sole condition that it be well tolerated by the organ with which comes immediate contact. There are instances, however, in which the stomach is absolutely intolerant of milk. Many people, especially old people, do not bear it well, either because of an unconquerable disgust for it, or because they can not digest it, and it produces diarrhœa and vomiting.

In fact, it is not because we find a blowing murmur at the apex or base that we should prescribe the milk diet; it is especially indicated in the stage of visceral hyperæmia when there is more or less intense dyspnœa, diminution of the secretion of urine and beginning anasarca. It is in this phase of the malady, which I have called *dynamic*, when all the troubles of hæmatosis are produced, a phase which is rapidly followed by the fourth phase, or the phase of cachexia.

The important point is, therefore, to have the milk well borne; consequently, if the patient can readily take it, it is best to advise its exclusive use for two or three weeks. It should be taken raw—that is, unboiled (it is more easily digested so)—in quantities of two or three litres per day. At the end of this period, so as to prevent disgust for the milk, the quantity taken per day is diminished, and a few eggs or a little meat are allowed; then return to the ordinary diet, which is allowed to be continued for one or two weeks, when the exclusive milk diet is again resumed and continued for a number of weeks. In this way disgust is avoided and all the benefits derived from the milk diet.

If the stomach will not accept raw milk, it can be given boiled; it can be associated with a small quantity of coffee in the morning, then in the form of soup through the day. Or it may be rendered more agreeable to the taste by add-

ing, for ladies, a few drops of distilled cherry laurel-water; for men, a small quantity of Kirsch-water (a liquor distilled from cherries).

If the milk should cause acidity, powders containing 25 centigrammes of bicarbonate, 10 centigrammes of prepared chalk and 1 centigramme of extract of nux vomica, may be prescribed; a powder to be taken three times daily. If it causes diarrhœa, subnitrate of bismuth, either alone or with opium, may be given—50 centigrammes of bismuth with 1 to 2 centigrammes of powdered opium to each powder. (There is no contradiction in the simultaneous employment of opium and nux vomica: the former addresses itself to the sensibility of the mucous membrane; the latter to the muscular contractility of the digestive apparatus.)

Generally it is good, when a recourse to the milk diet is indicated, to alternate this diet with the employment of digitalis; that is to say, it is well to give the digitalis for one week and then for the next two weeks resort to the milk diet; or, if it is to be given for a longer time, to give a smaller quantity of milk on the days when digitalis is taken.

I have derived great advantage from the administration of strychnia, or the preparations of nux vomica, concomitantly with the milk diet (on the days when the digitalis is not taken). The strychnia is given in pills of 1 milligramme each, two such pills per day; or three pills of 1 centigramme each of the extract of nux vomica, per day. I believe that the strychnia acts very efficaciously on the contractility of the cardiac muscle.—*Journal de Medicin de Paris*.

AGUE TREATED BY QUININE AND OPIUM.—Surgeon-Major Warburton (*Practitioner*) says that in cases of ague, especially of the quartan form, where quinine and arsenic, either separate or combined, exert little or no influence, he has found a grain or two of opium with ten or fifteen grains of quinine exhibited an hour or two before the expected paroxysm, to act like a charm. If possible the patient should go to bed in a darkened room, where he falls asleep or dozes, and the attack either does not come at all or is greatly lessened in severity. The opium acting as a sedative on the vaso-motor system, would thus appear to allow the quinine to exert its anti-periodic power unopposed.

Selections.

Syphilis of the Nervous System and Its Treatment.

BY LANDON CARTER GRAY, M. D.,

Professor of Mental and Nervous Diseases in the New York Polyclinic.

[CONCLUSION.]

2. *Hemiplegia under forty years of age, with or without preceding cephalalgia of the aforesaid type.* It is a fair clinical distinction that can be used for guidance of one's inquiry, upon first talking with a patient, to bear in mind that hemiplegia in the adult patient under forty years of age is usually of syphilitic origin, while hemiplegia in the adult above forty years of age is due to the chronic degenerative endarteritis of middle life and old age. Hemiplegia may occur in children, of course, from many other causes, and should, therefore, be ruled out in the present inquiry. This adult hemiplegia of specific origin may be either motor or sensory, or both, for anatomical reasons that need not be explained.

3. *Cephalalgia followed by hemiplegia, which bear a singular relationship one to another, in that the cephalalgia ceases immediately upon the supervention of the hemiplegia and does not recur.* This is a curious clinical feature to which, so far as I know, no writer has yet made allusion, and one which I have observed in over forty cases, although I can offer no explanation of it whatsoever. I have never seen it except in syphilitic hemiplegia. I should like to ask the attention of the profession to this point, in order that it may be tested.

4. *Convulsions in the adult which have not been preceded by convulsions in infancy, and are not of traumatic or nephritic origin, or due to pregnancy, or, in an individual subject, to migraine.* It is too much the custom, I think, to regard convulsions in infancy as harmless, and not prone to recurrence. In a paper which I read several years ago,* I called attention to the fact that a large proportion of the cases of epilepsy in youths or adults, would be found upon

*The Treatment of Epilepsy, N. Y. Med. Journal, June 28 and July 5, 1884.

careful inquiry to have had a convulsion in early life, that had usually been attributed to dentition or intestinal or febrile complaints; and of such early convulsions it may be very difficult to obtain a history unless the parents or some other near relatives are interrogated. The convulsions occurring in nephritis, or in certain women during pregnancy, are too well known to need more than a bare reference. Again, it is a curious fact, to which I have referred in the paper just mentioned, that migraine is interconvertible in certain individuals with epilepsy, so that most individuals who have a personal or hereditary history of migraine will be found, upon minute and patient interrogation, to have had a loss of consciousness or epileptic-like convulsion at some period of their life. If, however, pregnancy, migraine, nephritis, trauma, and preceding infantile convulsions, are excluded, a convulsion in an adult should give rise to grave suspicions of intracranial syphilis.

5. *Symptoms indicative of a lesion at the base of the brain.* Syphilis is especially apt to hug the base of the brain, and more especially that anterior portion of it which forms the hexagon wherein lie the olfactory, the optic, the motor oculi and the fourth pair of nerves, as well as the crura cerebri, and lesions of which impair the functions of these cranial nerves on one side of the body, and induce disturbances of motion and sensation upon the opposite side, giving rise to the so-called "crossed paralysis." Of course tuberculosis has a predilection for the same site, but the history of the patient and the presence of pulmonary symptoms make easy a diagnosis of this affection. It is true also that tumors of a non-specific origin may be found in the same location, but usually they are not so diffuse as a syphilitic infiltration, and usually also the specific lesions of this part of the brain are accompanied, or have been preceded, by a characteristic cephalalgia.

6. *A comatose condition extending over days or weeks, not traumatic, meningitic, diabetic, nephritic or from typhoid fever.* It is not always easy to exclude the coma of meningitis, especially in the early stage before the characteristic symptom of retraction of the head has made its appearance, although the temperature curve may be of great assistance. In my experience this retraction of the head is of well-nigh infallible importance. Fränkel, however, has reported a rare and curious case, from the wards of the Charité Hospital in Berlin, in which this retraction of the head was found

(post-mortem) to be due to a lesion in the middle portion of the ascending frontal convolution, just where the center for the muscles of the neck has been located on *à priori* grounds by Wernicke. The coma of nephritis, it must also be borne in mind, is not always of the profound nature that is seen where the urine contains large amounts of albumen. It may be light, variable in its manifestations, simulating a profound hysterical condition. Nor will it do to exclude nephritis by a mere cursory examination of one specimen of the urine for albumen. Several specimens should be obtained. Best one at morn, midday and evening, and the amount of urea should be estimated, casts, blood corpuscles and pus should be carefully searched for, and albumen should be sought for by the finer modern methods, rather than by the old and rough test by heat and nitric acid. I have more than once been called into consultation regarding conditions of coma, and have been informed that nothing had been found in the urine to indicate nephritis, and yet the autopsy has disclosed advanced disease of the kidney. Diabetes can, of course, be easily ascertained. Some anomalous cases of typhoid fever are apt to mislead one at the start, although the progress of the disease almost invariably makes the diagnosis very certain.

7. *Tabes dorsalis*, and

8. *General paresis*.

It is not much practical importance to ascertain the presence or not of a specific infection in these two grave maladies, because, so far as I have seen, the syphilitic causation has for them only this significance, that they will do rather better upon anti-specific treatment than the non-syphilitic cases; the course of the disease, however, is not materially altered.

9. *Spinal lesions in a subject who has had intracranial syphilis*. These spinal infections always require unusually large doses of the anti-specific remedy.

This quasi-periodical cephalalgia, this hemiplegia under forty years of age, this cephalalgia ceasing upon the super-vention of hemiplegia, these convulsions in the adult, these lesions at the base of the brain, these comatose conditions may be present singly or in varied grouping, and singly or in groups they should always give rise to a strong suspicion of antecedent specific infection.

We have seen how difficult it may be to obtain the precise history of the initial lesion in such cases. The question at

once arises as to what significance may attach to the success or non-success of anti-specific treatment. There can be no question that the profession are illogical in attaching the importance that they usually do to the results of such anti-specific treatment, because mercury and the iodides are efficacious in many affections that have no specific etiology. All the same, however, I can not disabuse my mind of the fast-rooted impression that a disease which disappears rapidly and completely under anti-specific treatment, and which has not been affected by other forms of medication, is of specific origin.

The *prognosis* is dependent upon the question as to whether the lesions are destructive or non-destructive, and in many cases it is treatment alone that can determine this point. In general terms it may be said that syphilis of the nervous system is of good prognosis except where it has set up actual organic disease, except where it has excited in the normal tissue the formation of some other structure that is foreign to the particular texture. The infiltrations of the nervous tissues themselves, the gummata, the arterial lesions, are by themselves remarkably harmless. It is singular to see, as we often do, how much and how long the nervous structure will present evidences of syphilitic disease and yet recover entirely under adroit and vigorous treatment. Buzzard tells of an artery that was almost occluded, being tested by the sphygmograph, and yet was freed by proper treatment. To speak more precisely, it may be said that the symptoms of good omen are :

Nervous syphilis in its early stage,
Lesions at the base of the brain,
Spinal lesions without preceding intracranial specific disease,
Peripheral lesions.

Of uncertain omen are :

Long standing nervous syphilis,
Syphilitic insanities,
Spinal lesions with preceding intracranial specific disease,
Convulsions,
Comatose conditions,
Hemiplegia.

Of bad omen are :

Tabes dorsalis,
General paresis,

Nervous syphilis in persons whose general health is bad,
Relapses in spite of anti-specific treatment,
Nervous syphilis in persons who bear iodides badly.

I have very pronounced ideas in regard to treatment. I know of no reason for dogmatism except considerable experience, and that is my excuse for my dogmatism. I have no faith in mercury, and I have discontinued its use for some time past. Again and again have I seen cases go halting along in the most uncertain manner under mercurial treatment, and yet have the symptoms been smoothly, gradually and certainly removed by the iodides. In several cases, too, I have known of death, although the most careful mercurial treatment had been pursued in enormous doses; and these cases have been precisely similar, as far as any one is able to judge of one case by another in the practice of medicine, to others that I have been accustomed to regard as of favorable prognosis under the treatment by the iodides. I am quite prepared to say that unless the iodides with their proper adjuvants—of which I shall speak in a moment—can cure a case of nervous syphilis, it can not be cured at all. But the doses of the iodides which are administered by the Germans and French will often be entirely inadequate. I give the iodides until the symptoms yield or until iodism is produced. I make use of the saturated solution of the iodide of potash, each drop of which contains almost a grain of the salt. I commence with twenty drops three times a day, and increase it each day by two or three drops at each dose, and keep increasing until the symptoms yield or iodism is produced. Should iodism ensue before the symptoms yield, I pursue one of two methods. I first increase the dose of the iodide by about one-third, and rapidly increase each succeeding day. Singular to say, in some cases this increased dosage will cause the iodism to disappear, and the larger doses will be borne very well. Should, however, these larger doses still more increase the iodism, I decrease to one-half the dose at which the iodism had begun, and continue this decreased dose until the iodism diminishes or disappears, when I again rapidly increase the dose, and am usually able to go on without further trouble. In some few individuals, however, no amount of care will cause more than a certain amount of the iodide to be borne, and such cases, as I have said, are usually of unfavorable prognosis. In some cases, too—for

unately they are rare—even small doses of the iodide will produce a cardiac disturbance that prohibits its administration. But this last fact should not be confounded with the phenomenon that the profession generally does not seem to be cognizant of, namely, that small doses of the iodide, five or ten grains, will usually produce more iodism than the larger doses. I am perfectly well aware that the medical chemist will object that these large doses of the iodide pass through the body and are quickly excreted by the urine; but I am equally well aware, in the face of this fact, that these large doses of the iodide will cause symptoms to yield that can not be made to yield by lesser doses. I have given as much as eight hundred grains of the iodide of potash in the twenty-four hours, and have seen symptoms disappear with these enormous doses that would not yield to minor ones. I administer the iodide after meals, and either in a full tumbler of ice-water, or in a glass of Vichy, or in a glass of a Bohemian spring water, the Giesshübler. I prefer the Giesshübler to the Vichy, although it is more expensive, because it is much more pleasant to the taste and agrees much better with the average stomach. Moreover, the Vichy water which is put up in siphons in this country is artificial, by no means equal in its effects to the natural water, and the natural water, either of this country or of Europe, does not keep as well in bottles as does the somewhat similar water of the Bohemian spring.

But he who expects to cure his patient with the iodides alone, unless the case be so grave as to call for immediate relief, will be disappointed. The human organism must be put in the best possible condition. A generous diet should be employed. Freedom from care and worry, where possible, should be enjoined, and all strenuous exertion of body or mind avoided. And let me say here that in many broken-down individuals the most satisfactory results may be obtained from a conjunction of the iodides with the brilliant treatment that has been made known by Dr. Weir Mitchell, under the name of "Fat and Blood Making"—a therapeutic procedure that, in my humble opinion, will rank in coming years with the surgical revolution inaugurated by Lister. When the acute symptoms have been brought under control, travel, especially an ocean voyage, will often work wonders. In every case that tends to chronicity, staple tonics and alteratives should be used.

I have often asked myself, when a person can be consid-

ered to be cured of nervous syphilis; and I have never succeeded in answering the question to my own satisfaction. I know of no data by which we can guide ourselves. I have seen relapses occur years after the disappearance of every untoward symptom, and I have seen them even where a certain moderate treatment by the iodides had been maintained. I usually impress this uncertainty upon my patients, warn them to be on the lookout for future symptoms, and apprise whoever may be their attending physician of their possible significance, and I enjoin them to keep up moderate doses of the iodide for years. This last precaution I observe the more readily because I have but seldom seen any ill effects from the continued administration of the iodides, to which patients usually become accustomed as they do to common salt. Occasionally it may happen that an obstinate pharyngeal or post-nasal trouble may be induced, or some unsightly cutaneous eruption, but, as a rule, these are controllable; and in any event they are far preferable to the possibilities of nervous syphilis.—*Phil. Med. News.*

Transactions of the Chicago Gynecological Society.

DR. HENRY T. BYFORD made the following remarks upon

THE PELVIC VISCERA OF AN INFANT THREE DAYS OLD.

“I have here the pelvic organs of an infant, three days old, which present some interesting facts bearing upon normal anatomy. We have the bladder in front, and the uterus situated behind and to the left side, directly in front of the rectum. The lower end of the cervix is decidedly to the left, as we often find it in the adult. The uterus is constituted of about one-fourth corpus, and three-fourths cervix. The cervix is also wider and thicker than the body. And what is also characteristic, and was first noticed by Winckel, the Fallopian tube, ovarian ligament and broad ligament on the side toward which the uterus is placed are shorter than the tube and ovarian ligament on the other side, showing that in this case the normal position of the cervix is to the left of the median line. There is also a slight persistent antelection. The rudimentary ovaries are almost against the uterus, and the right one and one-half times as large as the left. The cervical cavity is quite large and contains

mucus. The cervix extends considerably below the *cul-de-sac* of Douglas. The uterine artery enters the uterus a little above the middle of the cervix, considerably below the upper end of the cervical cavity. It is also interesting to note that the arteries upon the right side are larger than on the left. The uterus has a slight inclination from the cervix up toward the right and toward the median line, and thus already exhibits a slight lateral version such as we see in adult life. The vesico-uterine and sacro-uterine folds are well developed."

Dr. Charles T. Parkes make the following remarks on

A CASE OF OVARIAN CYSTOMA WITH TWISTED PEDICLE.

"The specimen that I present for your inspection is a case of ovarian cystoma with a twisted pedicle. The case was that of a woman, about forty-five years of age, upon whom I operated a few weeks ago; and it was one of those satisfactory cases that we meet occasionally, in which the patient positively gets better from the very day of the operation. This lady did not know that she had an ovarian tumor, previous to an attack of illness which came on about the 6th of April last, when she was seized with distention in the abdomen, pain and vomiting. She came under my care a week or so after this, with a temperature of 103° F., pulse 120, distended abdomen, in which a tumor could be felt, and with evidence of severe peritonitis. At that time I rather suspected that the cause of the trouble was some difficulty with the cyst, because I had the honor last year to report to the Chicago Medical Society a case in which the symptoms were very similar to this. It was a case of a twisted pedicle, in which the symptoms were abdominal pain, high temperature and acceleration of pulse. Under local applications and rest in bed, the symptoms began to subside; she then developed a bronchitis which kept her in bed a little longer and postponed the operation. At the end of the third week from this time the patient came to the hospital and was operated upon. When the incision was made through the abdominal walls down upon the cyst, there was found no space between the cyst and the abdominal walls; the cyst, being recognized from its color, was determined to be universally adherent to the abdominal walls. These adhesions were evidently very recent

"The cyst was tapped and then drawn out through the opening, and the adhesions separated as they presented at

the incision. As they were of recent development, they were easily separated, and without much hemorrhage. There has evidently been a twist in the pedicle at this point, then there is another decided twist at this point, and beyond that another, and, if the light is good, you can see the line of demarcation formed, in which spontaneous separation of the cyst would have finally taken place. The pedicle was divided just below this line of demarcation, which showed very plainly. There was a considerable amount of bloody fluid, as you would expect, inside of the cyst, and the patient was very pallid at first, which was one of the symptoms of her condition, showing that there was a considerable amount of hemorrhage as the result of the twisting of the pedicle. I am satisfied from the condition I found the pedicle in and the amount of adhesions present, that the principal part of the nutrition was carried on through these adhesions. The adhesions were universal and included every important organ, so the cyst got enough to keep up its supply and prevent mortification. It is the second case I have met with in my experience with ovarian cysts. It is not a rare occurrence, but it is important, if possible, to think of the symptoms that will call your attention to its presence. The *Journal of Obstetrics* mentions one case in which a twisted pedicle was followed by such a hemorrhage that the cyst was ruptured, and the patient died almost immediately from loss of blood.

"Sir Spencer Wells mentions a case of a lady who came from Moscow to him for treatment, and who had to stop at Berlin on account of trouble with the pedicle, and when she came to London, he operated immediately and found a large amount of blood in the cyst and in the abdominal cavity, because of the rupture of the cyst. She finally recovered.

"I have not counted the number of twists there are here; I suppose it is impossible to tell how many twists are necessary to cut off the circulation entirely; I imagine it does not depend upon the number of twists, but upon the degree."

Dr. Franklin H. Martin made the following remarks upon

APOSTOLI'S METHOD OF ELECTROLYSIS.

"I feel somewhat timid in coming before this Society, made up of eminent surgeons, to describe and advocate a method of treatment for fibroid tumors of the uterus, which

at best, by the majority of the profession, is considered in the light of a temporary expedient.

"While there has been, and for good reasons, a great deal of skepticism in the profession in regard to the value of treatment of fibroid tumors of the uterus by electricity, we are able to discern at present a general tendency to investigate its claims and to take advantage of its results. This tendency in the profession to investigate was brought about by the book of Dr. Apostoli, which appeared in 1884. Now, instead of charlatans monopolizing this valuable therapeutic agent, we find men of position in other countries adopting it—Reiman, of Kief; Deletang, of Nantes; Hue, of Rouen; Adolphe Elsassén, of Stuttgart; William Woodham Webb, of London; Gardner, of Montreal; and in this country, Engleman and Hulbert, of St. Louis; Bartholow and Massy, of Philadelphia; Baker, of Boston; and Skene and Freeman, of Brooklyn.

"I wish to confine my remarks this evening to the consideration of Apostoli's method of treatment of fibroid tumors of the uterus. Dr. Apostoli has done away with the mysterious low current. There is a positiveness about his use of electricity that has never been safely imitated by any other method. The reasons for Dr. Apostoli's success rest upon the following facts:

- "1. The use of strong currents.
- "2. Adoption of electrodes that make the use of a strong current possible, without harm to innocent tissues and without pain to the patient.
- "3. The recognition of the peculiar effects of the two poles, and the application of them according to requirements.

"4. Accurate measurement of current.

"5. Rational discrimination in selection of cases.

"By the employment of a strong current, short sittings are made practicable, and definite results are obtained. While the amount of electrolytic work done does not depend upon the strength of the current, but upon the quantity, definite polar action depends almost exclusively upon the strength of the current.

"The electrodes used by Apostoli are in all cases of two varieties; the active or internal electrode is for the purpose of concentrating the current at the point where it is most needed. This electrode may be a simple uterine probe of platinum, insulated to the cervical point, or a sharp needle

of iridium, insulated to within an inch or two of its point, which will penetrate the mass of growth from the cervical canal. The passive or external electrode is for the purpose of completing the circuit in such a manner that the strong current shall pass through the largest diameter of the growth, and at the same time diffuse the current sufficiently to prevent pain.

"When it passes through the sensitive integument, Apostoli uses for this purpose a biscuit of clay, molded upon the abdomen, properly connected with one pole of the battery. For this purpose I use an electrode of my own device. Over the concave surface of a plate of soft metal is stretched an animal membrane, which is attached to the edges in such a manner as to render the interspace between the membrane and the metal water-tight. This space, which is from one-half to one inch in thickness, is filled with warm water. The membranous surface is applied to the abdomen, and suitable connections made from the metal with one pole of the battery.

"The local effect of the negative pole when employed as the active electrode with a strong current, is to produce liquefaction of the tumor with which it comes in contact, and is compared to the effect of a caustic alkali. In fact it is called and is the alkaline pole. This pole, therefore, on account of its effect of rapid solution of tumors, is employed to reduce the size of these abnormal growths.

"The local effect of the positive pole when employed as the active electrode, with a strong current, is to produce coagulation and condensation of the tumor with which it comes in contact, and is compared to a caustic acid. It is the acid pole. The coagulating effect of this pole is utilized with marked advantage in controlling the hemorrhages caused by fibroid tumors. Whenever the entire cavity of a bleeding wound can be reached with the positive pole of a sufficiently powerful battery by means of an electrode of platinum, the hemorrhage can surely be checked.

"When a current of sufficient strength is employed to obtain the characteristic effects of the electrodes, as described above, in order to be of value in the treatment of fibroid tumors, a current of from fifty to one thousand milliamperes is necessary. A current of this strength should never be used without proper means of measurement at hand. The strength of the current employed should be varied with the work to be accomplished and the extent of active sur-

face of the internal electrode in contact with tissues to be acted upon.

"This scheme of treatment, which I have not been able, in the time allotted, to more than suggest, is capable of producing rapid and beneficial results. The most distressing hemorrhages can be permanently checked by the coagulating effect of the positive electrode. The most excruciating neuralgic pains, so often accompanying fibroid growths of the uterus, are almost invariably relieved; the smaller tumors are removed entirely, and the large ones rapidly reduced in size by the local effect of the negative pole and the electrolytic and cataphoric action of the current passing through the growth.

"The method is free from danger, if properly employed. I have yet to see an untoward symptom arise from its use. Its use is accomplished without producing pain enough to require an anæsthetic. The applications are best made in the office."

DISCUSSION.

The President.—"I had the pleasure of seeing Dr. Apostoli when I was in Paris, and he seemed to be a very conscientious and patient worker. He takes great pains to explain his method to any one who appears interested, and I am not surprised to hear his work alluded to by the speaker in enthusiastic terms."

Dr. Daniel T. Nelson.—"One thing I would like to have the doctor explain is, whether from the cauterization there may be septic absorption; whether he has seen anything to lead him to fear septic material formed thus in the interior of the uterus and absorption from it which might prove serious. I am very much interested in the doctor's plan of treatment. As the Fellows of this Society perhaps know, I have been and **am** still working in another direction, and will be very much obliged to any one who will report to me their success with ergot. It seems to me there are certain cases that would be better treated by one plan of treatment than another. For example, this specimen that Dr. Parkes has shown us seems to me could hardly have been satisfactorily treated, except as it was, unless the growth might have been stopped by the removal of the ovaries. I believe the treatment adopted was the best. Whether there are certain forms of fibroid tumor that can be better treated by ergot and others by electricity, is what I do not know and want

to find out, and I hope we shall have reports of the progress of the work in that direction."

Dr. Franklin H. Martin.—"In answer to Dr. Nelson's question whether I have noticed septic absorption, I desire to say I have not.

"The probes and instruments used about in the operation are thoroughly sterilized; the probe is passed through flame, and the rubber used about the insulator is made thoroughly aseptic. I have a number of cases which certainly would be of interest to this Society, but I have purposely reserved them, because I expect to make a report later.

"In the cases I have seen of a hemorrhagic nature, the hemorrhage has been checked. I have not seen a tumor that has not been materially reduced in size from a third to a half, and even two-thirds. I have seen three or four cases in which the tumor has entirely disappeared, and as far as I was able to judge, the uterus was decreased to normal."

Dr. Nelson.—"What were the dimensions of these tumors?"

Dr. Martin.—"The tumors I speak of now were small, from the size of an apple to that of a cocoanut. The treatment has a very decided and rapid effect in reducing the size of the tumor. In regard to the menstruation: in two cases that I have seen, the menstruation was entirely checked; in one or two others a slight show at the menstrual period was noticed. I have not seen sloughing, not enough to stop the progress of the treatment."

Chloroform in Labor.

At the last meeting of the State Medical Society of New York, Dr. Fordyce Barker read a paper entitled, "Is the danger from post-partum hemorrhage increased by the use of anæsthetics during parturition?" This subject is of great practical importance, and Dr. Barker has brought the treasures of a large and successful experience to its elucidation. His paper is eminently practical, and will secure a wide reading, and will, we doubt not, lead to the more frequent employment of anæsthetics in labor. Dr. Barker regards chloroform as the best and safest anæsthetic in obstetrics; since 1850 he has not used ether. He presents strong arguments for this selection. He has never been able to find any statistical evidence in proof of the statement constantly

made in obstetric literature, that anæsthetics increase the danger of post-partum hemorrhage. He expresses the firm conviction that no woman under the care of a watchful, prudent and competent obstetrician, ever ought to die from post-partum hemorrhage due solely to uterine inertia or ataxy. He also makes the important statement that uterine inertia, the fountain of post-partum hemorrhage, is often but another name for uterine exhaustion, and this is certainly much less liable to occur when the nerve force and vital powers have been saved by the use of an anæsthetic. While admitting that chloroform in some cases prolongs labor, and that uterine exhaustion often is the result of prolonged labor, he is satisfied that this apparent objection is more than counterbalanced by the good obtained by its use. As the result of his experience, he asserts that chloroform shortens labor in a greater proportion of cases than it retards it.

"He is certain that it does in all those cases where the pains are diminished or suspended by extreme sensitiveness and fear of pain, by vivid moral impressions of hysteria, or by pains resulting from the coincidence of some malady, either existing antecedent to, or appearing during, labor, such as rheumatism of the uterus or other muscular tissues, or sharp pains in the back or abdomen distinct from the pains from uterine contractions, gripings in the intestines, or the cramps which are occasionally produced by the pressure of the child's head on the sacral nerves; and, finally, in all those cases where inefficient uterine action results from loss of sleep and extreme exhaustion from a prolonged first stage; and in many cases where the labor is retarded by rigidity of the os uteri or perineum."

He has attended a number of patients who in previous confinements had alarming post-partum hemorrhages, though taking no anæsthetic, who have escaped this accident in labors in which chloroform was used. A peculiar idiosyncrasy, or former tendency to hemorrhage or extreme feebleness, the reasons given for withholding an anæsthetic in former labors, are the very strongest indications for the careful administration of chloroform. In private practice he has only had one case of post-partum hemorrhage, and in this case no anæsthetic was used, as the child was born before he had time to make an examination. Dr. Barker is convinced that the prevalent opinion that chloroform is dangerous for any woman with heart disease, is erroneous. He has had a number of cases of labor dangerously compli-

cated with organic heart troubles, which terminated favorably, as he thinks, solely from the use of chloroform. In an experience of thirty-seven years, using chloroform in several thousand cases, he has never in a simple case had reason to regret its use. The conclusions of Dr. Barker, drawn from such a large experience, will be most acceptable to the profession.—*Southwestern Medical Gazette*.

Anomalies and Differential Diagnosis of Tubercular Meningitis in Children.

REPORTED BY DUDLEY TAIT, B. S., M. D., KANSAS CITY, MO.

Clinical Lecture by Jules Simon, at the Hopital des Enfants Malades, Paris.

There are few diseases in which the symptomology is so varied, the clinical forms so numerous and the diagnosis so obscure as in tubercular meningitis. You all remember the little patient occupying bed No. 17, who caused us to hesitate and postpone our diagnosis. It was only at an advanced stage of the disease that we were enabled to pronounce in a definite manner. The variability of the symptoms and the changing course of the disease are in direct relation to the degree of generalization of lesions, and especially to their diverse localization. Considerable importance should be attached to the extent of inflammatory phenomena, such as ventricular dropsy and similar complications. The lesions in tubercular meningitis are numerous and diverse, and when we take into consideration the functions of the encephalon, it is easy to comprehend how pathological reactions may vary almost to infinity.

Having already, in a preceding lecture, studied the minute questions relating to tubercular meningitis, its symptomology and pathological physiology, I shall to-day endeavor to show you how many different affections may be mistaken for this disease, and, moreover, try to call to your attention some important facts and signs which may lead you to a correct diagnosis.

First of all, you will be astonished at the great difference in the course of the disease according to the cause. Here is a child who gradually declines in health and strength, complains of a vague uneasiness during several weeks, then

falls into a comatose state; a short remission of a few moments follows, and the child dies without having offered the classic symptoms of tubercular meningitis. The evolution of the disease was completed in one month. In contrast to this case, which we may classify among the slow variety ("*forme lente*"), we find an infant who presents signs of general malaise, fever, nausea and cephalalgia; all other symptoms disappear in eight or ten days, duly to reappear after a rather long interval, and shortly to give place to confirmed meningitis. Beware of these insidious or intermittent cases ("*forme intermittente*") which offer irregular crises.

In some cases the clinical tableau recalls typhoid fever much more than tubercular meningitis ("*forme typhoïde*"): pulse regular, 120; distention of the abdomen, hyperthermia, intense cephalalgia; no strabismus, convulsions or attitude special to confirmed meningitis; the respiration regular and frequent. After ten or twelve days the abdomen becomes excavated, the pulse slow, and the diagnosis of meningitis is clearly demonstrated. It is true that the association of the two diseases, typhoid fever and tubercular meningitis, is occasionally observed, but such cases are absolutely exceptional. In my experience I recall only one case in which the necropsy revealed a double lesion, typhoid ulcerations and tubercular granulations (meningeal and pulmonary), all very characteristic. Tubercular meningitis occasionally complicates pulmonary tuberculosis, or an old case of tubercular peritonitis arrested in its evolution; similar phenomena are much rarer in tuberculosis of the bones; at all events, such complications are very infrequent in our wards, where scrofulous caries abounds. When tubercular meningitis is grafted upon a case of tuberculosis, the meningitic symptoms always have a special aspect; after a series of insidious manifestations, too vague to attract attention, convulsions recur and prove rapidly fatal, being due probably to sudden compression.

In children of about the age of ten years or more, meningitis presents an entirely different aspect: the course of the disease is more acute and more rapid than in younger patients, pain is well pronounced and the *ensemble* of morbid manifestations often recalls the ataxo-dynamic form of typhoid fever.

It would be difficult to exhaust the subject and show all the clinical aspects under which tubercular meningitis manifests itself. I only desire to make you comprehend what

numerous difficulties spring up in arriving at a precise diagnosis when the classic symptoms, such as modification of the pulse and temperature, anomalies of respiration, etc., are absent. These anomalies are such that even cephalalgia, that most inevitable symptom, may be wanting. In some cases of tubercular meningitis cephalalgia is absent during the entire course of the disease, and the intellectual faculties remain intact. In other cases the slightest touch on the head or the least change of position gives rise to severe pain. In the first group of cases we find the patient sleeping quietly; in the other we notice noisy dreams and delirium. Vomiting is present in some cases, absent in others. Strabismus, sudden alternations of pallor and congestion of the face are occasionally wanting, and diarrhœa may take the place of constipation. I am therefore justified in saying that, with the exception of well defined cases (classic form), the diagnosis of tubercular meningitis is always a question of hesitation for several days. The prodromata of typhoid fever closely resemble this disease: the child is pale, inattentive, intellectually lazy; cerebral congestive manifestations are often present (agitation, insomnia, vomiting). But in meningitis you may at moments detect a slight strabismus, sometimes a slight deviation of the face, a certain degree of stiffness of the neck, and, lastly, perturbations in the respiratory rhythm. Moreover, the pulse is unequal, its numerical irregularities are not in relation with the thermometric variations. Tubercular meningitis presents absolutely irregular oscillations. In typhoid fever the thermometer shows manifestly an evening rise, yet there is no discordance between the pulse and the thermometric changes; both progress at about the same time. In all such cases, especially in general tuberculosis, or when abdominal symptoms are well pronounced, you will meet many delicate diagnostic points and necessarily experience some hesitation.

However strange it may appear at first thought, the differential diagnosis in children of pneumonic and tubercular meningitis is not always an easy question. Pneumonia in children, affecting the apex in the majority of cases, is accompanied by symptoms of congestion of the brain, and cases are not infrequent where these manifestations predominate and thus give rise to an error in diagnosis. Nevertheless, in pneumonia the invasion is very sudden: the child has been out, then complains of a sudden uneasiness and depression; prostration is extreme, sometimes being accom-

panied by vomiting or convulsions. If, under the circumstances, you carefully examine your little patient, you will be struck,

1. By the acceleration of the respiratory rhythm, which remains regular.

2. The rapidity of the pulse (about 140); and

3. The elevation of temperature, which ascends as high as 40°C . (104°F .), a very rare occurrence in tubercular meningitis, except in the ultimate period, where the temperature very rarely exceeds 39°C . (102.2°F .)

In similar cases you should remember the sudden onset and the other peculiarities of pneumonia, which will cause you to hesitate as to the diagnosis of tubercular meningitis, even in the absence of physical signs of pneumonia. In fact, the latter signs, especially at the onset, are far from being characteristic; sometimes you will find absolutely nothing; in other cases a diminution of respiration at the apex, or a slight decrease of sonorousness in the same region. Cough is often inconsiderable, may even be denied by people surrounding the little patient; it is only toward the fifth or sixth day that physical signs, murmurs, rales, etc., appear.

Chloroforming Persons while Asleep.

THERE are several points relating to the physiological action of chloroform which have an important bearing on the question. The condition of health and the age of the person are matters to be considered in regard to the possibility of chloroforming people while asleep. To adults in perfect health chloroform is a very decided cerebral stimulant, and it may be stated as a rule, to which the exceptions are exceedingly rare, that healthy adults can not be chloroformed while asleep, unless their sleep has been induced by exhaustion or hypnotic agents.

Weakly adults and children take chloroform with less resistance, as the stimulant effect on the cerebrum is less in degree and shorter in duration. Weakly adults and those acutely exhausted by disease or injury may be chloroformed during sleep. Such subjects more easily pass under the influence of any anæsthetic.

Children take chloroform so easily—only a few whiffs being required usually to put them asleep—that not unfre-

quently they may be chloroformed while asleep, and especially if they are depressed on any account. Not long since the author demonstrated to several physicians the ease with which chloroform could be administered to a sleeping child when in a state of depression. The case was one of cancer of the mesentery, in which the little patient had been exhausted by pain and restlessness.

The victims of chloroform at the hands of burglars are usually at the time in good health. The more improbable, then, is the story usually told of such burglaries. And in view of the exceptional instances in which healthy individuals can be chloroformed during sleep, the anæsthetization of a whole family becomes still more improbable. Indeed, we can not reconcile with our knowledge of the action of chloroform all the newspapers' accounts we have read of how burglars anæsthetize a whole family and then proceed to plunder. Every link in the chain of such a story is made of only a bare possibility.

Under all conditions anæsthesia by chloroform can be accomplished during sleep only by skillful administration. Overdosage at the outset will certainly awaken the sleeper. Only by very gradual administration can the anæsthesia be accomplished. We doubt the ability of burglars to force the anæsthesia of several or more persons sleeping in the same room without raising an alarm.

An impression prevails that burglars usually proceed by impregnating the air of an apartment with chloroform vapor, so as to gradually anæsthetize all the sleepers at the same time. The weight of chloroform vapor and the readiness with which it descends make it difficult to saturate the air of a sleeping apartment, especially one at the time well ventilated. Besides, the quantity of chloroform necessary to saturate the air sufficiently to produce anæsthesia is very considerable. Allowing one and a half grains of chloroform to the cubic inch of air, it would require thirty-eight fluid ounces of chloroform to sufficiently impregnate the air of a room ten by twelve feet, with a ceiling eight feet high. It would certainly take a considerable time, too, to vaporize this quantity of chloroform, to say nothing of the probability of awakening sleepers by any process of atomization. Even if the saturation of the air of a room were possible by any process, without awakening the sleepers, what would protect the burglars themselves from the all-pervading soporific influence? Burglars are seldom bunglers, and

their operations are usually conducted with too much intelligence for us to believe that they often waste their time and increase the risks of detection by attempting to chloroform peaceful slumberers.

In all the published accounts of robberies committed in the presence of persons said to be asleep under the influence of chloroform, which have occurred in our reading, the burglars have always been successful, not only in pillaging the premises, but in chloroforming everybody in the way. Now, we can not believe that burglars, who are supposed to be laymen, operating at night, in the midst of many obstacles and under circumstances calculated to be embarrassing in the event of detection, can usually accomplish in all or nearly all instances what skillful physicians accomplish with difficulty in exceptional cases, and that with all the circumstances favorable.

So, we are obliged to give it as our opinion that as a rule, with rare exceptions, the natural sleep of healthy adults is interrupted during chloroform anæsthesia, whatsoever the manner of administration; and we do not believe one-half of the stories about burglaries accomplished with the aid of chloroform.—*N. O. Med. and Surg. Jour.*

Dysentery.

BY I. J. M. GOSS, A. M., M. D.

By special request of some of your readers, I write this essay upon epidemic dysentery. Dysentery is now prevailing in several localities in the South and Southwest, and is quite fatal. It seems to prevail in all the swampy and miasmatic districts of the South of the United states. In addition to the miasmatic form, in Mississippi, Louisiana and Texas, we have epidemic dysentery in Georgia, now of a typhoid type. The type is in accordance with the peculiar molecular composition of the poison, giving it its affinity in one case for one part of the nerve center, and for another part of that center in another locality. The successful treatment depends upon a thorough understanding of these peculiar poisons affecting the nervous system. These poisons are like remedial agents in their affinities and endowment.

We find that dysentery prevails extensively in localities where there is alluvium, or where there is much marshy,

undrainèd land. Acute dysentery occurs in a sthenic or active form and in malarious or periodical form and in an asthenic or typhoid form. These three forms of the disease occur under the modifying influence of the peculiar, producing cause, which has the power to morbidly impress the system.

This disease is of every grade, from the mild form, only attended with an occasional mucous or muco-sanguinous discharge, and some tenesmus and slight tormina, to that form attended with high fever, nausea and vomiting and very frequent dejections of bloody mucus, and great tenesmus and tormina. Many cases of this grave type of epidemic dysentery are attended by a fever of a remittent type, with a temperature ranging from 104° to 105° F., with a dry surface. The patient is soon prostrated and emaciated. This form of dysentery, when severe, requires an antiseptic treatment. I have found the tincture of baptisia, in doses of ten to fifteen drops every two hours, very positive in its curative effects. If the pulse is very quick and the patient having chilly sensations over the body, one drop of aconite every two hours will aid the cure.

Many cases at the outset will be much benefited by the administration of a drop or two of the first decimal dilution of veratrum album. This remedy is of especial benefit where the dejections are frequent and choleraic, with vomiting and great thirst, and cramps in the bowels or limbs. Many cases have yielded to small doses of the first decimal dilution of ricinus com. (castor oil) in doses of a teaspoonful every hour or two, so as to keep the small bowels unloaded, and thus divide the inflammation. If the fever is periodic, quinine, in doses of two grains, is the remedy.

We are now having that form of dysentery occurring under circumstances that favor the development of typhoid conditions of the system, and, consequently, stamping this disease with a distinct asthenic grade of action. Here the discharges are more of a bloody serum in the outset, then a jelly-like mucus. The entire aspect of the patient is that of a depressed and typhoid condition. And the tendency in this type is to extreme exhaustion, and early collapse and death. Here, in addition to the baptisia, the tincture of hamamelis, in doses of fifteen to thirty drops, every hour, aids in the arrest of the inflammation. If the tormina and tenesmus is very great, then I give twenty-five to thirty drops of the elixir of opium with twenty drops of tincture of gelsemium

every three hours, which lessens the patient's suffering very much and aids the cure. If no improvement in two days, then give *rhus toxicodendron*, one drop every hour. I have seen cases where the discharges were green, or shreddy, like the washings of fresh meat, immediately improve under one grain of the third trituration of *merc. cor.* every hour. And if there is colic, one drop of the tincture of *colocynth* may be given every alternate hour. I predict that the *terebene* will do good service. In cases where the stools are like prune-juice, *nux vomica*, three to four drops of the tincture every three or four hours, has fine effect. I have used one drop of tincture of *gamboge* every hour with good effect in several cases recently. The upper bowels should be open.
—*Med. Brief.*

Retroflexed Splints for Fractures of the Forearm.

BY W. D. KEARNS, A. M., M. D., OF PITTSBURG, PA.

Read in the Section on Surgery at the Thirty-eighth Annual Meeting of the American Medical Association, June, 1887.

NOVELTY, although attractive, ever engenders doubt, and oftentimes hasty rejection; and every innovation challenges closest scrutiny. When, however, practicable, safe and intelligent, as the exponent of full and sound principles and practice, it will ultimately be earnestly embraced and adopted. Especially may this be said of the phenomenal advancement in the record of medical science of the present day. Throughout all the "fearful and wonderful" mechanism of our creation, through all its ample endowments by divine wisdom and infinite power, in variety, scope, application and execution, that member of our body, the hand, is pre-eminent. And yet no member of the human body is quite so obnoxious to violent injuries as the hand and forearm, and for obvious reasons. No bone of the human skeleton (except, perhaps, the clavicle) is so frequently the seat of fracture as the radius, and no fracture has, perhaps, received greater practical study than that of the lower end of the radius, known as "Colles' fracture."

To a hasty study and to the ready application of the principles involved in the restoration of the skill of the hand and forearm, when maimed by fracture of the radius at the lower extremity, or indeed fractures of both bones of the forearm at any and all points, your attention is earnestly in-

vited. As the rehearsal of the descriptive relative anatomy or of the pathology consequent to the fracture of the forearm would be an unnecessary use of your time and patience, beyond certain essential parts and conditions which can be referred to as we proceed in our recital, I will enter at once on the discussion of the subject of this paper: retroflexed splints in the treatment of "Colles' fracture," a term adopted as significant of the point at issue; also, as has been suggested, "the extension of the hand on the forearm."

"Value of Ingenious Splints," is the heading of a short extract from a lecture by Mr. Hutchinson, of London, in an issue of the *Medical and Surgical Reporter*, in which this distinguished surgeon says that, "as a commentary on the futility of inventing complicated splints and apparatus for fixing limbs, none of which ever meet general approval, he might refer to an ingenious instrument devised by Dr. Gordon, of Belfast, after long-continued anatomical study of Colles' fracture. This, which was intended for general use among surgeons, is figured, (says Mr. Hutchinson) in a text-book by a leading surgeon, *upside down*; and assuming from this that even the author of the work is practically-unacquainted with the splint, although he writes about it, what chance is there of its being universally adopted?" He goes on to say that not only Colles', but all fractures are most successfully treated by extension, which can readily be applied through the agency of a simple, straight splint; and, he continues, very thick pads should be fitted to the splints. Now, this last consideration—this necessary and judicious stricture—evolves the great practical point in our present discussion, and introduces the great results in practice through the successful application of the principles advanced in the heading of this paper, and *a priori* concedes this acknowledged inefficiency of straight splints in seeking the aid of thick pads.

The sad results so often witnessed in the marked "silver fork" deformity, the great abridgment and relative loss in the free movements and the skill of the hand for many weeks, and in elderly patients, perhaps for life, are a source of great dissatisfaction and perplexity. We most naturally seek such measures as may aim at their prevention. Whilst at times the fracture may be transverse, yet it is the common form, the oblique, and even more or less longitudinal, that present obstinate and persistent difficulties, the greater resistance to retention and are the more exacting of the retaining splints.

Complete reduction of the fracture is absolutely required, whatever form of splint may be applied; but the disastrous impairment of the functions of flexion, extension, pronation and supination, the ankylosis due to the inflammatory processes along the sheaths of the muscular tendons, ligaments and fasciæ; these mischievous structures must, if possible, be averted, and this insufficiency of the straight splint, however deeply padded, to secure the necessary angles of flexion of the wrist and the metacarpo-phalangeal articulations, suggested the congruity of the flexed splint—a splint less complicated than a thickly padded straight splint, inasmuch as a comfortable condition and proper relaxation of all the tendons and fasciæ of the forearm and hand are at once permanently secured.

Whether, then, the fracture of the radius be transverse, oblique, more or less longitudinal, or more or less comminuted, the conditions governing the form of the retaining splints are, after complete reduction, alike exacting, and may be, it is maintained, best subserved by retroflexed splints, which seem greatly effective in preventing the formidable impairment of the functions of flexion, extension, pronation and supination, such attained relaxation obviating the inflammatory adventitious processes in the sheaths of the muscular tendons, ligaments and fasciæ, whilst the bony structure is progressing, through the analogous process of provisional callus, to ossification.

The essential principles maintained in the treatment, not only of Colles' fracture, but in that of all fractures of the ulna and radius, may be generalized as consisting, after careful, complete reduction, in the maintained complete relaxation of the muscular tendons of the arm, forearm and hand, of the fasciæ and ligaments of both superficial and deep flexors of the anterior brachial region, of the pronators, and of the superficial and deep extensors of the radial region, to their tendonous insertions, even of the short and seemingly unimportant muscles and fasciæ of the palmar surface of the thumb; the early free use of the thumb adding greatly to the early use of the hand. The continued maintenance of this relaxation is of paramount importance in connection with the immobilizing of the wrist, the proximal point. These essentials are the great recommendations of the retroflexed splint.

Gray's "Anatomy" furnishes a plain, practical illustration of the muscles engaged in the displacement of the frag-

ments in Colles' fracture, disclosing the acting causes of the biceps, the pronators and supinator longus, where it is seen the upper fragment is under control of the biceps, lifting the upper fragment further from the ulna, the pronator-radii-teres drawing the upper fragment inward, the pronator quadratus drawing the lower fragment inward, near to the ulna; the supinator longus, contracting, lifts up the styloid process of the radius, pressing down upon the ulna the lower fragment. How readily is the displacing power of these muscles intercepted through the ordinary mode of the flexion of the forearm on the arm, a simple bend at the elbow; a like bend at the wrist will yield like good.

When both bones of the forearm are broken—as when but one—the use of thin, narrow, interosseus pads will exercise a controlling force upon the displacing influences of the pronator quadratus and the supinator longus. The continued, strained abduction of the hand on Nelaton's "pistol-shaped" splint, if abduction is sufficiently prolonged to produce any tangible effect, presents and exercises an unnatural and uncomfortable condition.

Again, splints, to be effective, should immobilize the proximal point; hence, short splints, or even a short palmar splint and a long, straight dorsal splint, are alike inadequate; for, says Miller ("Principles of Surgery"), "in fractures of the radius, for instance, unless the wrist be completely commanded, pronation, inevitably causing displacement, ill-adapted callus, and a weak as well as unseemly limb, will certainly occur." A short splint, extending a little above and a little below the fracture only (says Dr. Potts) is not only an absurdity, but a mischievous absurdity. The necessity of the greater width of the splint than the encased limb, to obviate consequent depression and displacement of the fragments by the retaining bandage, is a familiar safeguard.

The dressing of the fracture is very quickly done, and no removal of the splints is required for the satisfactory examination of the arm. Both splints being thickly inlaid with absorbent cotton, having three strips of adhesive plaster at hand, an inch or two in breadth, placing the inside splint along the arm, grasping the hand of the fractured arm with the surgeon's right hand, sufficient traction is made while the left hand retains the inner splint and feels the fragments in proper apposition—the outer splint is applied, and clasping both splints firmly, a strip of adhesive plaster encircles the splints at the wrist firmly, another at their upper extremity

and another around the hand part of the splints. In case of fracture of both bones, an interosseous pad should be invariably applied, and can be placed and held *in situ* by the same original grasp. These adhesive strips hold firmly the splints, when the retaining bandage may be leisurely applied.

It may be noticed that the hand end of the splints admits of slight drooping of the hand, the simple curve of uncontrolled muscular action. It will be observed, also, that the angle of retroflexion of the dorsal splint is studiously sharp at the wrist, an angle about 122° , applying the pressure from the splints only to and upon the extremities of the radius and ulna, carefully avoiding any and all pressure upon the carpal bones. This angle should be of degree sufficient to secure complete relaxation of all the posterior muscular tendons above mentioned by the backward bend of the hand; whilst the partial closing of the hand secures the necessary relaxation of the anterior tendons and fasciæ. The palmar splint continues on over the muscular prominence of the three flexors of the palmar surface of the thumb, preserving their full unconstraint, whence it dips backward spreading over the palmar surface of the partially closed hand.

While we have invariably, for many years, applied a bandage to every fractured limb previous to the application of the splint, yet would this careful custom from recent teaching seemed more honored in the breach than in the observance; for, says Dr. John H. Packard in the fourth volume of Ashhurst's "International Encyclopedia of Surgery": "In former times a custom of applying what was known as an 'immediate bandage' to a fractured limb, in order, as was supposed, to prevent muscular contraction. This custom has now been generally abandoned, although it is still followed by some practitioners. It can never do any good, and may do much harm." Yet, with profound respect to this authoritative source and consideration, an "immediate bandage," loosely and intelligently applied, may do some good in controlling muscular action and preserving the contour and integrity of the relative anatomical cast and condition of all within its envelopment—a tegumentary supplement. In fractures of both bones it were best omitted.

The retroflexed splints, then, give a ready, comfortable and effective maintenance of all appreciable, required mus-

cular relaxation of the extensors and flexors, traversing in their tendonous sheaths beneath the anterior and posterior annular ligaments to their ultimate insertion along the phalanges, and relaxation of the muscles and fasciæ of the hand and thumb, and, lastly, may they justly claim an eminent preferment in securing the early, free and full use of the hand.

Latest Method of Dilatation of the Uterine Cavity

(*Charpentier, Nouv. Arch. de Gynecol.*)—In this paper special reference is made to Vulliet's procedure of gradual dilatation of the uterine cavity by means of tampons, for purposes of inspection and treatment. The method is judged in a critical spirit from an analysis of seven reported cases where it was tested by others than the promulgator. Vulliet's aim is to maintain the cavity of the uterus, the cervix included, patent during weeks even if deemed necessary. The technique we have already described—*vide* this *Journal*, November, 1886. It has been used so far in three affections—chronic endometritis, submucous fibroids, cancer of the uterus. C. has thus treated two cases of endometritis; in the one complete dilatation was obtained at the end of ten days, the endometrium was then curetted with ease, iodoform tampons applied for six days, and then the patient was pronounced cured; in the second case twelve days were required for dilatation, the endometrium was touched with nitric acid, the cavity kept open by tampons for three weeks, and then the patient discharged cured. In only one of these cases was tamponing painful. In case of fibromyomata, after complete dilatation of the uterus, Vulliet cuts off the capsule and leaves the expulsion of the tumor into the uterus to nature aided by ergotin and electricity. He then completes removal by the classical method. Vulliet does not give the results in these instances, but Porak has followed the method partially in one instance and concludes that inspection of the uterine cavity thus obtained was not of any special service to him, and, further, the introduction of the tampons was very painful, and fifteen days were requisite for dilatation. Labail also reports a case in which on the third day of dilatation the temperature and pulse suddenly rose, the result of a slight sepsis.

It is particularly in case of cancer that Vulliet recom-

mends his method, having resorted to it in thirteen cases, in nine of which the treatment was purely palliative, and in so far successful; and in four the disease was of recent date, and these are pronounced cured, although sufficient time has not elapsed to speak positively.

From study of these and a few other cases, C. concludes.—V.'s method is not always applicable, as is proved by the cases of Porak and Labail; when dilatation is obtained, accurate inspection of the cavity is possible, and the uterus may be kept dilated without inconvenience or injury to the patient, for weeks and months. The uterus does not react, usually, against the tampons, and the patients are not confined to the bed or the house. The chief question to be answered is, as to whether V.'s method offers hope of the possibility of the radical cure of cancer. C. simply states that under free dilatation it is certainly possible to eradicate the disease more thoroughly, and that, perhaps, through resort to it the number of hysterectomies may be reduced.

[To us V.'s method does not seem to offer any advantages over thorough dilatation by means of, we will say, a tupelo tent. The finger, if trained, may thus acquire ample knowledge of the condition of the uterine mucosa, aided, where needed, by the curette and the microscope. Possibly from the standpoint of treatment, such complete dilatation might be of service in exceptional cases.]—*E. H. G., in Journal of Obstetrics.*

Treatment of Cholera Infantum in the Bellevue Hospital and New York German Dispensary.

DR. A. JACOBI treats the cases which come into his ward, as follows:

INTERNAL MEDICATION.

Empty the stomach and bowels of fermenting masses. For this purpose castor oil answers well. A dose of calomel (grs. j-vj.) answers better, because it acts as an anti-fermentative, besides being a purgative.

Neutralize acids (fat acids) in the stomach. Carbonate or phosphate of calcium, grs. j-ij., every one or two hours acts as an adjuvant to other treatment. Bismuth also answers this indication, besides being an anti-fermentative. Dose, grs. ss-ij. every one or two hours. May (must) be combined with opium, Dover's powder, grs. $\frac{1}{10}$, $\frac{1}{5}$ or $\frac{1}{3}$, every one,

two or four hours. No salts of magnesium or sodium, because they add to the diarrhea in these acute cases. Avoid syrups to correct the taste of medicines. They will turn sour. Prefer glycerine.

Antifermentatives.—Calomel, bismuth, alcohol, creosote, salicylate of sodium and resorcin have been recommended for their antifermentative effect. Of the two latter I prefer resorcin, iv-x. grs. a day in solution (suspension) or as a constituent of powders (with bismuth chalk opium).

Sedatives.—Opium diminishes hyperæsthesia, hyperperistalsis and hypersecretion. Dover's powder (gr. $\frac{1}{10}$ to $\frac{1}{8}$ every two to three hours) acts very well, though some writers object to it, and is indispensable. Does well with bismuth, and prepared chalk, with or without resorcin.

Astringents.—In acute cases, and when the stomach participates in the process, lead, tannin, gallic acid, alum, etc., are badly borne. In chronic protracted cases they will find their indication. Nitrate of silver does better in many acute cases, gr. $\frac{1}{50}$ to $\frac{1}{30}$ in 2 drachms of distilled water (dark bottle) every two hours. Creosote water in chronic cases.

Stimulants.—Alcohol may be added to food. Bad brandy or whisky contains fusil oil, which is a paralyzing agent. Whisky is therefore preferable with us, because it can be obtained in greater purity for less money. (See under "Food.") Never give it raw. Camphor is better borne than ammonia. It is easily taken when simply rubbed off with glycerine suspended in mucilage (gr. $\frac{1}{4}$ -ij. every one or two hours). The strongest nerve stimulant of all is Siberian musk. Give in urgent cases of collapse gr. j-ij. every fifteen or thirty minutes (best suspended in mucilage) until six or twelve grains have been taken. A very good stimulant in collapse is the injection into the bowels through a long, flexible tube (catheter No. 12) of hot water with some alcohol, and one or a few drops of tincture of opium.

EXTERNAL APPLICATION AND HYGIENE.

In acute cases with high temperature, applications of water (60° to 70°) to the abdomen. Where much pain and with anæmic children, warm applications do better. Frequent injections of water (100° F.) answer well in most cases, not only in rectal catarrh. In collapse of great debility the water ought to be from 105° to 112° F., and contain some alcohol and opium. Part of this water will be absorbed, fill the blood-vessels, and may prevent intracranial

and other thromboses. The addition of gum Arabic to the injection, or the use of glutinous decoctions (flax seed) instead of water is quite satisfactory. Open doors and windows in hot weather. Select the coolest place in the neighborhood for the patient, day and night. Night air is better than no air. Country air, sea air better than city air, particularly at some altitude. When the body is warm and the weather hot, wash the body with cool water or alcohol and water (1 : 5) frequently. Cold feet must be warmed artificially.

Food.—No raw milk, no boiled milk, no milk admixture at all, in bad cases. In vomiting and severe diarrhea total abstinence for from one to six hours. Afterward teaspoon doses of a mucilaginous or farinaceous decoction. Regular food: 5 ounces of barley water, $\frac{1}{2}$ drachm of brandy or whisky, the white of an egg, salt and sugar—teaspoonful every five or fifteen minutes, according to age and case. May be mixed with mutton broth, which with white of egg, etc., is better than beef soup or beef-tea in convalescence. Abstinence better for vomiting than ice; the latter may quiet the stomach, feel pleasant, but stimulates peristalsis. Avoid beef-tea. If it be given in convalescence, mix it with barley water.

Toward the end of the disease, or when the discharges are many and copious, and inspissation of blood and thromboses (hydro-encephaloid) threatening, the common sense of the practitioner will introduce liquid into the circulation as best he can. No written rule ever supplies or substitutes brains.

At the New York German Dispensary, Dr. Augustus Caille varies the treatment with the period at which the child comes under observation. Inasmuch as a simple dyspeptic diarrhea may develop into the most violent choleraic diarrhea through the agency of high temperature and improper feeding, it will be well to consider briefly the prophylaxis of cholera infantum—*i. e.*, the treatment of gastric catarrh, with tendency to diarrhea. The diet of the sick child must be at once restricted. Food should be withheld for a period of from six to twelve hours, and water given *ad libitum*; also oatmeal, barley, toast-water and lime-water. Nursing babies can be deprived of the breast for the same length of time.

The bowels should be evacuated by means of castor oil, magnesia cum rheo, or calomel gr. $\frac{1}{2}$, sugar gr. v. pro

dosi, given every hour until five are taken. It is best to place the powders dry upon the tongue. If the tongue remains coated twenty-four hours after the administration of calomel, etc., dilute hydrochloric acid, with or without pepsin, is indicated.

R. Acid. muriat. dil., . . . gtt. xl.
 Aquæ, ʒ ijss.
 Pepsini pur., ʒ ss.
 Syrup simp., ʒ iv.

M.

Sig.—Teaspoonful every hour.

R. Acid. muriat. dil., . . . ʒ ss.
 Aquæ, ʒ xiv.
 Tinct. opii, gtt. ij.
 Syrupi simp., ʒ ij.

M.

Sig.—Teaspoonful every two hours.

In acid dyspepsia, alkalies (mist. cretæ) are indicated.

In order to save time and prevent misunderstanding, Dr. Caille has found it a good plan to have a diet card printed, which he presents to the parents, telling them to give to the sick child the articles of diet which are not crossed out. The articles enumerated on the cards are as follows:

Barley-water, oatmeal-water, white of egg in water, gum Arabic in water, lime-water, whisky in water, bread crust boiled in water and allowed to cool, milk with any of the above waters, meat broth with any of the above waters, cold tea.

The acute attack (cholera infantum) calls for the following treatment:

1. Anti-fermentative (antiseptic) measures.
2. Rest for the intestinal tract.
3. Stimulation and prevention of collapse.

If a child is seen early, before collapse has set in, it should be kept as quiet as possible, and no food given for six to ten hours, on account of irritability of stomach. Pounded ice, with or without whisky, cold tea, ice tied in a rag, to be held in the mouth, are advisable; also lime-water, toast-water, rice-water.

To meet indications 1 and 2 he relies on the following drugs:

R_y. Bismuth subcarb., . . . 3 j.
 Aquæ cinnam., . . . 3 ij.
 Tinct. opii, . . . gtts. ij.

M.

Sig.—Teaspoonful every one to two hours.

Or,

R_y. Sodii benzoatis, . . . 3 j.
 Aquæ, . . . 3 xiv.
 Syrupi, . . . 3 ij.

M.

Sig.—Teaspoonful every two hours.

Or,

R_y. Acid. carbol. pur., . . . gtt. ij. ad vj.
 Mucilaginis, . . . 3 ij.

M.

Sig.—Teaspoonful every two hours.

Or,

R_y. Argenti nitratis, . . . gr. ij.
 Aquæ destil., . . . 3 ij.

M.

Sig.—Teaspoonful every two hours.

Or,

R_y. Resorcin, . . . gr. ij.
 Aquæ cinnam., . . . 3 ij.
 Tinct. opii, . . . gr. ij.

M.

Sig.—Teaspoonful every two hours.

He avoids the addition of syrup to a mixture if possible, and omits opium if the patient apparently has little or no pain.

When children are very restless and show by their actions that they suffer pain, he does not hesitate to give small doses of opium—one, two or three drops in a two-ounce mixture.

A towel wrung out of cold water and secured over the abdomen appears to relieve pain; and a warm mustard bath stimulates in impending collapse.

For obstinate vomiting he frequently gives:

R_y. Tinct. iodin., . . . gtt. xv.
 Aquæ menthæ, . . . 3 j.

Sig.—15 M. every hour.

A change of air is of the utmost importance. Children taken from a hot tenement to the seashore or any cool, shady place, improve perceptibly in a short time, if not too far collapsed.

Large enemata of tepid water, with or without the addition of some antiseptic drug (acid. salicyl.), should be tried in obstinate cases, but in dispensary practice this method can not well be carried out.

Stimulation must not be delayed until symptoms of collapse are marked. Young children with high temperature, cold and clammy feet and hands, and a pulse too rapid to be counted, are frequently stimulated in vain. The best stimulants, in his experience, are :

R. Camphoræ, . . . gr. $\frac{1}{4}$.
 Sacchar., . . . gr. $\frac{vj}{10}$.

Every three hours.

R. Camphoræ, . . . gr. $\frac{1}{4}$.
 Pulv. Doveri, . . . gr. $\frac{1}{10}$.

Every two hours.

R. Camphoræ, . . . gr. j .
 Bismuthi, . . . gr. $\frac{vj}{10}$.

Every two hours.

If the children vomit to the drug, it will be necessary to give camphor in ether, or camphor, caffeine and ether hypodermatically.

In the dispensary practice children can not be seen oftener than once every other day, or every day at the utmost. It is therefore a good plan to prescribe anti-fermentative medicine and camphor powders at one consultation, and direct the parent to give the powder after the medicine has been taken.

During the period of convalescence, astringents are indicated to combat the intestinal catarrh, such as tannic acid, acetate of lead, with or without opium. To guard against relapse, it is of the utmost importance to select the proper food for children deprived of the breast. In the majority of cases milk and oatmeal or barley gruel, in different proportions according to age, with a pinch of salt, some sugar and, if necessary, lime-water, will be the proper food for a child up to twelve months. This food has been repeatedly recommended by Prof. A. Jacobi for the past twenty-five years. If it fails others should be tried. Dr. Caille has had good

results from the employment of the so-called "peptogenic milk powder," and one or two other preparations recently introduced.—*Med. News of Phil.*

Remarks on Stricture of the Rectum.

BY W. R. WHITEHEAD, M. D.

At the time of my first paper on Fibrous Stricture of the Rectum, I endeavored to review carefully the literature of this subject; and among numerous publications noticed, the paper of Gosselin received my most thoughtful consideration, and indeed enabled me to prepare the way for the ready acceptance by American surgeons of the part which chancroidal ulceration of the rectum plays in the causation of rectal strictures, which, except those of cancerous origin, occur almost exclusively in women, as the result of the extension of chancroidal ulcerations of the rectum; and the persistence of these ulcerations in the ampulla of the rectum finally causes stricture.

The auto-inoculable character of the chancroidal pus explains the facile transmission and presence of chancroids in the rectum of women. The secretions of the vagina and vulva, mixed with chancroidal pus, escape and trickle down about the anus in women while in the recumbent position, and hence the liability of women to chancroids about this orifice. The extension of a chancroidal sore from the anus to the ampulla of the rectum is easily effected, and chancroidal ulceration of the rectum ensues. And this disease is indefinitely prolonged, until the chancroidal virus in course of time loses its virulent contagiousness, as it may do elsewhere. The ulceration of the rectum, however, continues, and ultimately results in stricture of the rectum, which from this cause is common and occurs almost exclusively in women; while from simple ulcers, or cancer, rectal stricture is rare; and from syphilis, as gummy tumors of the rectum, altogether exceptional.

I have no knowledge whatever of childbearing as a cause of rectal stricture. As for the "kink in the gut" cited by Mr. Harrison Cripps, and alleged by him to be due to "contraction of that portion of the pelvic fascia which runs around the rectum," occurring, as he says, generally after

the fourth confinement, or after a difficult one, followed by pelvic cellulitis, this is an explanation of the cause of stricture of the rectum that I confess I can not readily accept. It is easy to perceive that a pelvic cellulitis may by pressure obstruct the gut, and that an extensive chancroidal ulcer of the rectum may cause a limited pelvic inflammation, which would slightly displace the rectum to one side; and, in fact, the evidences of an old pelvic cellulitis at a post-mortem examination complicating stricture should not be taken as proof that the cellulitis was the cause of the stricture.

Tripier, of Paris, was probably the first to apply electrolysis to the treatment of urethral strictures, and Dr. Robert Neuman, of New York, and myself were probably the first to use electrolysis in the treatment of rectal stricture. Dr. Neuman's case had fæcal fistulæ, and died; and I had an opportunity of examining the specimen at a meeting of the New York Pathological Society. It was after seeing Dr. Neuman's case that I, then living in New York, with the valuable co-operation of Dr. Wm. B. Neftel, treated a case of stricture of the rectum by electrolysis, which is reported in the *American Journal of the Medical Sciences* at considerable length.

The electrolytic treatment of this case extended over a period of one month, and during this time Dr. Neftel subjected the patient to four *séances* of electricity, each one lasting about half an hour. At the first *séance* an application was at first made with a Curt-Mayer (platinum-zinc) battery. The cathode, made for the purpose, was introduced partially into the stricture and there was a rapid dilatation of the lower part of the stricture only. At the second *séance*, a week later, the box of Remak's battery containing Siemens elements was substituted for the Curt-Mayer battery. Dr. Neftel began with two elements and gradually increased to fifteen, at which number the current was maintained for five minutes, with a deflection of the needle of the galvanoscope of fifteen degrees. The current was then gradually, by the addition of one element at a time, increased to twenty-one elements, which was used during five minutes. It was then interrupted, and I examined the upper part of the stricture with my finger, and found it considerably dilated. The applications were several times renewed. At the third and fourth *séances* about twenty of Siemens elements were used, and considerable

frothy mucus, caused by the evolution of hydrogen gas at the cathode, issued from the rectum.

Some months afterward the patient came to the Northwestern Dispensary, and was carefully examined by my clinical assistant, and the stricture was found to be quite as tight as before the electrolytic treatment.

Microscopy.

American Society of Microscopists.

THE arrangements for the tenth annual meeting of the Society are now definitely made. The Society convenes, as previously announced, in Pittsburg, Pa., August 30, 1887, and will probably continue its sessions four or five days. The programme will be substantially as follows:

Tuesday, 10 A. M., opening session—addresses and business; at 2 P. M., the first session for reading and discussing papers, after this a field excursion to Chartiers; in the evening, the President's annual address. Wednesday forenoon will be devoted to the consideration of papers; in the afternoon the Society will be invited to visit, with the Iron City Microscopical Club, the extensive steel works of Carnegie, Phipps & Co., at Braddock. The party will go by steamer up the historic Monongahela; a field excursion has been planned in connection with this pleasure trip. In the evening, there will be a session of the Society. Thursday morning, election of the Nominating Committee, followed by papers and discussions; in the afternoon, the working session will take place; in the evening, the annual *soirée* or public exhibition of microscopical objects, directed by the Iron City Microscopical Club. Friday morning, the election of officers, followed by papers and reports until final adjournment. Special daily programmes will be issued each morning during the meeting.

The general sessions will be held in the chapel of the First Presbyterian Church, on Wood Street. It is extremely well suited for the purpose, and but a few minutes' walk from the hotel and depots, with street-cars between the same.

The working session will also take place in the chapel; the main hall and several adjoining rooms will afford ample

room for those who have kindly and generously consented to demonstrate various methods of investigation. There is room yet unoccupied, and the committee in charge respectfully invite members who desire, or are willing, to take part in this practical feature of the meeting to communicate to any one of the committee their subjects and a statement of what they will require for use. This should be done at once. Members are also urged to bring to the meeting apparatus of their own device or construction, accessories and microscopes of unusual merit, etc. In connection with the hotel assembly-room, there will be collected a temporary library of rare books and manuals; a considerable number of volumes have been promised; these will be under the constant care of a librarian. Contributions to this exhibition are solicited.

The annual *soirée* on Thursday evening will be held in Old City Hall, corner of Diamond and Market Streets. This hall will be arranged with tables sufficient for placing two hundred and fifty microscopes. The Society will meet on this occasion a large number of invited guests; and in order to make this a creditable entertainment, it is urged that every member in attendance bring one or more microscopes to the hall, with *one* popular but good object for each, and that pains be taken to show these preparations well and explain them. Objects of one's own mounting and study are generally most satisfactory. Members and visiting microscopists are requested to send at once to James H. Logan, Pittsburg, or to the Secretary, the name of each microscope to be used, and the name and description of the object to be shown by each, written as it should be printed in the programme. The local committee in charge will supply all needed tags, blank labels, lamps, etc.

The number of papers in the hands of the Secretary (by title or in full) warrant the assertion that the meeting will be one of unusual scientific interest. Those expecting to present communications of any sort are again earnestly requested to send to the Secretary, at once, their titles and abstracts, in order that the Executive Committee, at its first meeting, may be able to properly arrange the time and order of their presentation. *Authors are also urged to have their manuscripts and drawings so completed and revised that they may be left with the Committee on Publication at the meeting.* This trifling amount of care and pains will save delay and perplexity on the part of the committee. This has

been said before, but the necessity for saying it grows no less! If it is desirable to have the Proceedings issued promptly and in complete form, every one should heed the above solicitation. If this plain duty is neglected by any one, it is likely to delay progress.

Hotel headquarters will be at the Monongahela House, where ample parlors and exhibition rooms will be furnished. The rate to those attending the meeting will be \$2.50 per day. This hotel has been selected in order to best carry out the suggestion of the President, *i. e.*, an *en masse* meeting. This house will conveniently entertain all. The plan presents so many obvious advantages that, no doubt, all visiting members will do what they can to encourage it.

Badges will be supplied to members and visitors. These badges will secure to the wearer certain privileges during the meeting; hence, they should be conferred strictly by the local club through which the favors are secured. These will be given by the committee on the usual evidence of membership, *viz.*: the Treasurer's ticket and on registering. All are requested to register at once on arrival, in order that, among other reasons, the daily printed lists of arrivals, which will be made from the register, may be correct. A cheerful observance of this easy rule will save a good deal of confusion.

The meeting-place is of sufficient interest to justify attendance. Pittsburg is no longer "the Smoky City"; it is built on ground memorable in the history of this country; it is the "gateway to the West," and equally the "*entrepot* to the East"; its location is that of a natural geographical center. Its comprehensive railway system, lines converging here from east and west, renders it easy of access. The Monongahela House may be reached by street-cars from the Union Depot, by crossing the bridge from the Lake Erie Depot, and is but a step from the Baltimore & Ohio Depot; moreover, committees of the Iron City Microscopical Club will meet the principal trains and escort strangers to the hotel.

Attention is called to the printed blanks. Any one intending to recommend persons for membership, will please do so now—reminding them, in all cases, that the Executive Committee is, by by-law, forbidden to act upon a recommendation until the Treasurer has received the entrance fee and one year's dues, *i. e.*, \$5.00. If any one intends to read a paper or present any theme for discussion or practical

demonstration, he will please give proper and prompt notice. The Executive Committee will meet at eight o'clock Monday evening, August 29th, at the Monongahela House. Representatives of the Society and local committee may be found at headquarters after Saturday, August 27th.

D. S. KELLICOTT, Secretary.

BUFFALO, N. Y., August 5, 1887.

OFFICERS OF THE SOCIETY FOR THE PITTSBURG MEETING.

President—Prof. W. A. Rogers, Waterville, Maine.

Vice-Presidents—C. M. Vorce, Cleveland, Ohio; Dr. Jas. E. Reeves, Wheeling, W. Va.

Secretary—D. S. Kellicott, Buffalo, N. Y.

Assistant Secretary—Dr. S. M. Mosgrove, Urbana, Ohio.

Treasurer—Dr. Geo. E. Fell, Buffalo, N. Y.

Executive Committee—John J. B. Hatfield, Indianapolis, Ind.; Dr. W. R. Mandeville, New Orleans, La.; Dr. W. A. Clapp, New Albany, Ind.; Dr. R. H. Ward, Troy, N. Y.; Prof. H. L. Smith, Geneva, N. Y.; J. D. Hyatt, Morrisania, N. Y.; Dr. Geo. E. Blackham, Dunkirk, N. Y.; Gen. Jacob D. Cox, Cincinnati, Ohio; Prof. T. J. Burrill, Champaign, Ill.

Committee on Working Session—Gen. Jacob D. Cox, Prof. T. J. Burrill and D. S. Kellicott.

A FREEZING MICROTOME.—Dr. Isaac N. Himes, of Cleveland, sends a description of a new freezing microtome, which will be useful in the examination of fresh specimens, and especially in the demonstration of tissues removed at a post-mortem examination, to classes in practical microscopy. The freezing is effected by the evaporation of distilled ammonia. The microtome is a modification of Dr. Thomas Taylor's freezing microtome. In the latter, a freezing mixture of salt and ice is used—the cold salt water being allowed to flow through a hollow chamber, upon the flat, upper surface of which the specimen to be frozen is laid. In Dr. Himes' modification, the ammonia liquid or spray is made to enter a hollow chamber, altered in construction to suit the ammonia method of freezing. The instrument is always ready for use; there is no sloppiness incidental to the use of salt and water; there is no subsequent labor in cleaning up, and the temperature may be made so low that alcoholic preparations may be cut without much soaking to remove the alcohol.

Gleanings.

BORACIC ACID FOR LEUCORRHŒA.—From the excellent results which are yielded by boracic acid packing in chronic suppurating otitis, Dr. N. F. Schwartz (*St. Louis Courier of Medicine*, June, 1887) was led to employ it in a case of leucorrhœa which had resisted the most persevering use of the ordinary remedies. The experiment was successful within a fortnight, and the patient has remained well for several months since. Dr. Schwartz states that he has been equally successful in a number of other cases. His manner of using it is as follows: Having first irritated the vagina with water at as high a temperature as can well be borne by patient, a cylindrical speculum is introduced and the vaginal walls very carefully dried, first with a soft sponge and then with absorbent cotton. This done, boracic acid in crystals is poured into the mouth of the speculum and pushed up against the uterus and vault of the vagina with a clean cork caught in a uterine sponge-carrier, sufficient acid being used to surround and bury the intravaginal portion of the cervix, filling the upper part of the vagina. A tampon of absorbent cotton is then firmly pressed against the packing, and held *in situ* until the folds of the vaginal walls close over it as the speculum is withdrawn.

This should be allowed to remain three or four days, or even longer, as after this time there still remain some undissolved particles of the acid, nor will the tampon seem at all offensive. The ostium vaginæ, if examined in twenty-four hours, instead of being besmeared with the leucorrhœal secretion or discharge, presents a clean appearance, and bathed in a watery fluid, which begins to appear several hours after the packing has been placed, and in his cases this was the only discharge noticed afterward.

However, a second or even a third repetition may be necessary, but in none of his cases, numbering nearly a score, has he found more than a second packing called for, and in many one sufficed; and in no instance has its use occasioned pain, not even inconvenience.

A SEXLESS BEING.—In the *Gazette Medicale de Paris*, Dr. Polaillon described a remarkable case of malformation in a patient, aged 31, who died of hepatic abscess in the Hôpital de la Pitié. The patient had been a tailor, then a

general dealer. He presented the external appearances of a woman, being completely beardless and bearing small but distinct mammæ. His voice was feminine, his stature low, and he was a great coward, displaying much mental perturbation at the prospect of dressing his abscess, and shrieking during the process. The pelvis was broad and quite of the female type. From a distinct and prominent mons veneris ran two cutaneous folds, corresponding precisely to labia majora; they joined posteriorly in front of the anus. The penis was hardly an inch and a half long, but perfectly formed, and the relations of the corpora cavernosa, glans and urethra were normal. The prepuce was long, and formed a phimosis. The scrotum was small and perfectly empty, and there was no depression or cavity representing a vaginal or vulvar orifice. The most remarkable feature of the case was the entire absence of testes, spermatic cord and vesiculæ seminales. The neck of the bladder was of the male type; no trace of ovaries or uterus existed. The recto-vesical pouch was very deep.

THE ODORS OF INFECTIOUS DISEASES.—Dr. Niven writes as follows on this point, in an article on fevers in the *Medical Chronicle* for June, 1887:

It is a fact of some interest, at all events from a diagnostic point of view, that some of the infectious diseases possess special odors. The only odor, besides that of rheumatic fever, I have seen any mention of in literature, is that of typhus fever, which is of a peculiarly heavy and offensive nature, and has been likened to the smell of rotten straw. It is quite characteristic, and is obviously not the result of filth, since it is present in the cleanliest people who have contracted the disease. It is evidently some special product of the virus of the disease, or of the tissues under its influence.

It is doubtful whether the same thing can be said of the disgusting and peculiar odor of smallpox, which occurs only in the worst cases and is of the gravest omen. It is not present in cases that do well, even where the body is covered with scabs, and it therefore probably means merely necrosis of the tissues and a ptomaine generated in that process.

Some six years ago I made a minute study of scarlet fever, and I was very much struck by a peculiar sweet odor of the breath, almost aromatic in character, which, though

far from unpleasant in itself, is rendered unpleasant by associations. I also observed that this odor is most marked in the early stages of the disease. That this is no mere imagination will be clear when I mention that a nurse to whom I pointed this out, diagnosticated the occurrence of scarlet fever in a smallpox patient at the height of the smallpox, a whole day before any other symptom of scarlet fever appeared, simply from the peculiar scarlatinal odor of the breath; and I have myself on several occasions been able to diagnosticate scarlet fever in this way before the appearance of the rash. This smell is sometimes excessively strong, especially in cases of what I should call toxic scarlet fever, where the throat is but little affected, the rash is discrete and dark and there is much delirium. It is then like a powerful and heavy ether.

The same peculiar and sweet odor is fairly often to be observed in the breath in cases of typhoid fever, but never attains the penetrating and powerful character that it does in certain cases of scarlet fever. I have not been able to distinguish between the odors of typhoid and scarlet fever.

Measles also has a smell of its own, somewhat resembling that of scarlet fever, but quite distinguishable.

CORNEA GRAFTING.—Mr. W. Johnson (*Brit. Med. Jour.* December 18) gives four cases of cornea grafting performed in India. The cases selected were those in which the sight of both eyes was practically lost. The method of operating was as follows: A trephine a quarter of an inch in diameter and with four teeth was first used, but as this tore the delicate tissues, the teeth were ground down so that a knife edge was formed all around, a flat piece of bone with the under surface curved to conform to the shape of the eye, and with a circular hole cut in it just the size of the cutting extremity of the trephine, was now placed on the eye of the patient (after anæsthesia by cocaine) and a circular piece excised by the trephine. When the trephine is nearly through it is found to yield, and perhaps some vitreous escapes; it is now taken away and the excised portion is seized by forceps and entirely cut away with the point of a Von Graefe's cataract knife. The wound is now well cleaned, and bleeding stopped by cold water. All being ready, a selected full-grown rabbit is killed, and a similar circular piece, but of slightly larger diameter, is taken from its eye, washed in warm water and immediately put into the pa-

tient's eye. As the inserted piece is larger than the excised, it makes a tight fit and no sutures are necessary. The eyelid is carefully closed, and the eye bandaged. The patient is kept quiet for two days and the eye examined; it is then cleaned with very weak carbolic solution and closed for two or three more days. In all the cases the result was the same: the grafts fixed themselves without difficulty; then vitality gradually declined, transparency being lost, and finally they became red and opaque and seemed to dwindle away. In three months it would be impossible to say that a graft had been made. Although so far unsuccessful, the writer believes he will eventually succeed in restoring sight to some of the eyes, and intends to continue his experiments.

THE TREATMENT OF PULMONARY PHTHISIS BY LARD WITH MILK.—Dr. N. Akimenko, of Prof. V. G. Lashkevitch's clinic, in Kharkov, writes that, having many a time heard of excellent services obtained by the Russian peasantry from treating various wasting chest diseases by the internal use of lard with milk, he resolved at last to give a fair trial to that popular remedy in several cases of early pulmonary phthisis. In all the cases the affection was diagnosticated on the ground of Koch's microbe being present in the patient's sputa. The method was practiced in the following way: He took the fat from the omentum and mesenterium of a recently killed pig, soaked it for twenty-four hours in cold water, then picked out all connective tissue, and boiled from a quarter to a third of a pound of the fat with three glassfuls of unskimmed milk on a slow fire for three or four hours, until about two glassfuls of fluid were obtained. The latter was then strained through a piece of muslin, and cooled down to be administered (after duly shaking) to the patient, the dose being at first one-quarter or half a glassful three times a day; but by the end of the second week as many as three glassfuls a day. The results obtained were these: 1. The patient's weight invariably increased (in one of the cases the patient gained nine and a half pounds in thirty-three days). 2. Cough and expectoration were alleviated, while the quantity of sputum was considerably lessened. 3. The appetite always improved. Such patients in whom the loss of appetite had formerly amounted to a complete aversion for meat, after the treatment of two or three weeks' duration, requested me to allow them an ad-

ditional meat-dish. 4. The patients took the lard emulsions with pleasure; no digestive disturbances were ever observed. Pointing to his results, Dr. Akimenko recommends his professional brethren to try the lard treatment in phthisis, especially in such cases where cod-liver oil can not be employed on account of its "verily disgusting taste," or in consequence of its causing gastric disturbances.—*Provincial Medical Journal*.

WHAT SALT OF QUINIA SHALL BE USED HYPODERMATICALLY?—The *Therapeutic Gazette*, of May 16, 1887, answers this question as follows:

As regards quinine the question appears to be settled, for the time being at least, in favor of the hydrochlorate. At the last meeting of the Paris Society of Pharmacy (April 6) the merits of the rival claimants, the sulphovinate and the lactate, were discussed and summarily disposed of. The sulphovinate has the disadvantage of decomposing when kept, and thereby becoming apt to cause abscesses when injected; the lactate being but little soluble when crystallized, so that the solutions have to be made extemporaneously from freshly precipitated quinine and lactic acid, with some precautions to insure the percentage of active principle. On the contrary, the hydrochlorate is a stable compound, sufficiently soluble and easily procured from dealers, in well defined crystals, much less liable to adulteration than the ordinary medicinal sulphate. The reason of this comparative purity may be that the sulphate is an old acquaintance of the dealers, in fact, too familiar to them, while the hydrochlorate is a newcomer. But it is unnecessary to borrow trouble, suffice it to say for the present that this salt appears to be the most eligible quinine compound for hypodermatic uses, and that it is, in the actual state of science, found in commerce unadulterated with other cinchona alkaloids.

FIFTEEN OPERATIONS ON THE PREGNANT UTERUS.—Hofmeier, of Schröder's Clinic, in Berlin, reported fifteen operations at the recent German Surgical Congress, whose results were as follows: Seven were cases of pregnancy complicated by carcinoma uteri, for which five supravaginal and two total extirpations were done; there were six cases of fibroma and two Cæsarean sections. The mortality was two—one after supravaginal and one after total uterine extirpation. Four cases were followed by abortion and return of

the original lesion ; and for one of these, in a woman the second time pregnant, a total extirpation was done. Fibromata were removed from the uterus twice—once at the end of pregnancy, once at five months. No difficulty was experienced in operating. After the elastic hemostatic bandage was applied the uterine wound was closed by étage sutures and the peritoneum was carefully stitched over the incision with catgut. No hemorrhage came from a stump so sutured ; it was replaced in the abdomen.—*Berliner klinische Wochenschrift*.

NEW VIEWS ON PRURIGO.—Dr. Tom Robinson, in the *Journal of Cutaneous and Venereal Diseases* for July, 1887, sums up his observations in the following postulates :

I.—There is not such a disease as *prurigo*.

II.—That all cases of itching skins have a recognized and discoverable cause.

III.—That all the group of symptoms which are known as prurigo are the result of scratching, and are simply symptoms.

IV.—All scratched skins which have advanced to an elephantoid state, and which have set up enlargement of lymphatic glands, are beyond the reach of remedies or hope.

V.—That the pruriginous skin of children has its origin in developing hair follicles, which progresses from birth to puberty, when it stops.

VI.—That excessive itching does not occur in those situations where the hair grows luxuriantly.

VII.—That what is known as winter prurigo is due to imprisoned hairs.

VIII.—That an irritable state of the skin is always associated with an irritable state of the mucous and synovial membranes.

HOUSEMAID'S KNEE.—Geo. Saunders, M. D. (*Brit. Med. Jour.*) says : "In the first two stages of the disease surgical writers advise, after tapping by means of a small trocar or aspirator, the employment of pressure by means of strapping. It has been my practice not to use strapping, but a piece of lead about the size and thickness of a crown piece, wrapped in lint, and placed over the patella and then firmly and equally bandage the knee, which should be continued for about a month. Previous to tapping the part should be painted with iodine, and also occasionally afterward. I have

not considered it necessary to confine the patient to bed longer than two days. I have treated bursæ on the back of the wrist on the same plan with satisfactory results."

BARIUM CHLORIDE IN VASCULAR DISEASES.—Kobert, of Dorpat, Russia, writes as follows in the *Therapeutic Gazette* of June 15, 1887: The best application for dilated cutaneous veins (for example, on the legs) is the following:

R. Barii chloridi, . . . gr. xxx.
 Dissolve in distilled water and mix thoroughly
 Lanolini, . . . 5 iij $\frac{3}{4}$.
 Olei amygdalarum dulc., . m. lxxv.
 M. F. Unguentum.

Sig.—Three times daily, with friction, whenever dilated blue veins shine through the skin.

Barium chloride can also be used hypodermatically in place of substances of the digitalis group, in cases of heart-disease where help is demanded so soon that remedies given internally are not available.

A FORMULA FOR THE USE OF HYOSCINE AS A HYPNOTIC.—Dr. Dorset, of the State Insane Asylum of Texas, has found the following of benefit:

Hyoscine hydrobromate, . gr. $\frac{1}{50}$.
 Paraldehyde,
 Oil of almonds, . . . āā 5 2.
 Chloroform, . . . m. 10.
 Oil of Cinnamon, . . . m. 2.

M.

The medicine given at bedtime in drachm doses, in a great number of cases, is all that is necessary to secure a quiet, refreshing night's rest. The patients are not so nervous the next morning, and are ready to take a good breakfast.—*Texas Courier Record*.

LOCALIZED FACIAL SWEATING.—Dr. N. A. Parfianovitch, of Kaluga, relates two instances of this rare affection, one occurring in his own person. About six years ago he went through an attack of typhus fever, complicated with supuration of the right parotid gland; this left behind it a considerable impairment of sensibility in the masseter muscles and the skin of the right cheek, with marked liability to localized sweating. The perspiration, which is so profuse that large drops run down the cheek, is limited to the right

temporal region, and invariably occurs during mastication. Another case is that of a lady, who also had a right parotid abscess, with subsequent formation of a deep scar, and who sometimes suffers from sweating limited to her cheeks, and coming on only on mastication.—*Brit. Med. Jour.*

THE TREATMENT OF LARYNGEAL PHTHISIS.—Massei, of Naples, reports the results of his study and practice in laryngeal phthisis as follows:

1. We are still in want of some remedy or remedies to effect the cure of laryngeal phthisis.

2. Notwithstanding this want, the local (palliative) treatment of the disease is incumbent upon every physician.

3. Many of the cases quoted by various writers are of an extremely hypothetical nature, inasmuch as they have not been a sufficient time under observation.

4. Cocaine, iodoform, iodol and sublimate are perhaps the best of all local remedies. Lactic acid, even by submucous injection, does not appear to have led to favorable results.—*Jour. of Laryngology*, May, 1887.

CORROSIVE SUBLIMATE AND UREA IN SYPHILIS.—Schutz has employed the following formula:

Aq. destil.,	.	.	.	.	3 3/8.
Hydrarg. bichlorid.,	.	.	.	gr. 15.	
Ureæ,	.	.	.	.	gr. 3 1/2.

The amount of urea may be increased to eight grains. Fifteen minims daily should be given by hypodermatic injection. Twenty-six cases have recovered under this treatment, which acts more easily, promptly and with less pain than do injections of other combinations.—*Jour. de Med.*, June 5, 1887.

BACTERIA IN INTESTINAL DISEASE.—Escherich, of Munich, in an exhaustive article in the *Centralblatt für Bacteriologie*, No. 24, concludes as follows:

Our knowledge of intestinal bacteria has made little advance because of our ignorance of the bacteria found in normal intestines, and our lack of differentiation as to pathogenic and non-pathogenic bacteria. Our efforts are at present confined to attempts to sterilize food, and we have as yet few researches upon the nature of intestinal bacilli themselves. The line of progress lies in this direction, and it is more than probable that analysis will separate cholera

infantum into several diseases closely allied in nature and causation.

A SUCCESSFUL CASE OF EXTIRPATION OF THE LARYNX.—At a recent meeting of the French Society of Otology and Laryngology, Fauvel exhibited a patient on whom Péan had, in 1885, performed extirpation of the larynx, leaving only the epiglottis and a part of the arytenoid cartilages. The patient had resumed his occupation; he succeeded in making himself understood in a feeble, guttural sound, but in words formed by the mouth and lips; this voice, deficient in quality, was audible at a moderate distance. No appliance to improve his voice had been successful. The diagnosis before operation lay between epithelioma and syphilis.—*Revue de Laryngologie*, June, 1887.

DYSMENORRHŒA.—I use fl. ext. viburnum opulus, in teaspoonful doses, three times a day, for ten days (or longer) before the expected period; and when the discharge begins and the pain is at all severe, I give a dose every half hour, or even every fifteen minutes, till the suffering is mitigated, then at longer intervals as may be required. In a few months ordinary cases are usually cured.

For irregular menstruation I use aletris farinosa or, which is more palatable, Aletris Cordial. Where there is both irregularity and pain I combine the viburnum opulus and the aletris.

S. C. BRIDGEWATER, M. D.

PROLAPSUS ANI.—I have used the following recipe with adults and children, with marked success:

R. Ext. Hamamelis Virg., . . . 1 ounce.

Glycerit. Ac. Tannic, . . . 1 ounce.

M.

Sig.—To be applied in the rectum with little finger or small mop two to three times a day.

An injection of slippery elm water (lukewarm) once a day, by softening the fecal matter, will assist the cure. Children in such cases usually need tonic treatment (orally).

ALEX. F. SAMUELS, M. D.

MENTHOL AND COFFEE FOR CORYZA.—

R. Menthol. Pulv., . . . gr. 3.

Coffee roasted and finely ground,

Pulv. sugar, . . . aa gr. 75.

Use as a snuff.—*L'Union Medicale*.

APOMORPHINE AND MORPHINE IN WHOOPING-COUGH.—
Dr. P. F. Fedoroff states that he has obtained good results in whooping-cough by the internal use of the following mixture:

R. Morph. muriat., . . . gr. ij.
Apomorph. muriat., . . . gr. j.
Acid. muriatic, . . . ʒ ss.
Aq. destil., . . . ʒ viij.

M. D. S.—A teaspoonful four times a day.

The paroxysms are lessened both in number and frequency after the first few doses of the mixture.

DYSMENORRŒA.—

R. Iron by hydrogen, . . . 40 grains.
Aloes (P. Cape), . . . 8 grains.
Ext. Nux Vom., . . . 10 grains.

M. Div. pil. 20.

Sig.—Give one pill three times a day, before meals.

Continue with the pills till one week before menses should make their appearance. Then stop the pills and commence with Aletris Cordial, giving a teaspoonful four times a day, before meals and at bedtime. F. M. BATEMAN, M. D.

A STIMULANT INHALATION.—

R. Ess. terebinth., . . . ʒ 3 $\frac{1}{8}$.
Picis Nowegiensis, . . . ʒ 5.
Chloroformi, . . . m. 15.

M.

Sig.—By inhalation, to relieve hoarseness.—*Jour. de Medicine.*

OINTMENT FOR DRESSING.—

R. Iodoformi, 2.5
Ol. eucalypti, 20.0
Paraffini,
Vaseline, āā 50.0

—*Centralblatt für Therapie.*

THE best treatment for a bunion, in Prof. Gross' opinion, is the following: The patient should wear a broad boot, apply a blister to the bunion, remove the skin, and then freely apply a mixture of cosmoline and tannic acid, equal parts.—*The Medical Summary.*

Book Notices

SYPHILIS. By Jonathan Hutchinson, F. R. S., LL. D., Consulting Surgeon to the London Hospital and to the Royal Ophthalmic Hospital, Vice-President of the Royal College of Surgeons. With eight Chromo-Lithographs. 12mo, pp. 532. Cloth. Philadelphia: Lea Brothers & Co.; Cincinnati: R. Clarke & Co. Price \$2.25.

This work belongs to the series of "Clinical Manuals for Practitioners and Students of Medicine," which the Messrs. Lea Brothers & Co. have been publishing. The volumes of the series are so printed and bound that their size permits them to be easily portable, while the paper and type permit of a very large amount of matter in each one. Add to this, they are sold at a very low price. As these Manuals are extended so as to embrace more works, we have no doubt they will increase in favor and become very popular. They are exceedingly convenient works for reference.

The author states in the preface that the literature of syphilis is encumbered with ill-founded opinions and untrustworthy facts in consequence of the many special sources of fallacy. Patients often have reasons for not telling the exact truth, and still more often are not themselves cognizant of it. Besides, the disease is a slow one, and the case histories which we have to investigate frequently extend over many years; and add to this, none of the symptoms are pathognomonic, and consequently both patients and advisers may give us misleading evidence.

The author has aimed less at systematic completeness than at clinical exposition. To the latter subject he has devoted his best efforts; and he hopes, therefore, that those who may give the work an attentive perusal will obtain from its pages clear impressions of the present state of our knowledge on most of the topics which it concerns.

The author is a strong advocate of the theory that syphilis depends upon a living and specific microbe, and that it is contagious or transmissible only so long as that microbe retains its vitality. He considers it of the utmost importance to keep this doctrine in mind, for he thinks it simplifies our reasoning and clears our view at every step.

Still he is of the opinion that the particular microbe which

begets the disease has not yet been demonstrated. He regards it, however, surprising, considering the successes which the study of bacteriology has attained of late years, that it has not been discovered. We also consider it most remarkable that it has not been brought to view, for the lenses of microscopes have been brought as near perfection as we can reasonably expect they will ever be. But more than one investigator has announced to the scientific world that he has succeeded in demonstrating the syphilitic microbe.

The work is a very thorough exposition of the subject of syphilis. The author has expended many years in close study of the disease, and he has so studied it as to be misled as little as possible by fallacies of any kind. The volume is therefore a digest of the observations and experiences of one who has investigated in the light of the most recent advances of science and in the light of the observation and experiences of other investigators. There is no work which better exhibits the most recent views of specialists in regard to the pathology and treatment of syphilis than this work of Mr. Hutchinson.

A MANUAL OF TREATMENT BY MASSAGE AND METHODICAL MUSCLE EXERCISE. By Joseph Schreiber, M. D., formerly Docent in the University of Vienna; Foreign Member of the Societe Francaise D'Hygiene, of the Societe D'Hydrologie Medicale of Paris, etc. Translated with the Author's Permission. By Walter Mendelson, M. D., of New York. 8vo. Pp. 285. Cloth. Price, \$2.75. Philadelphia: Lea Brothers & Co. Cincinnati: Robert Clarke & Co.

The translator in his preface, in giving a reason for publishing an American edition of the work, says: "The growing tendency of modern therapeutics to do away, as far as possible, with the use of drugs, and to seek to cure disease by the application of the laws of hygiene, has made it desirable to present to the medical public a practical work on that oldest branch of the healing art, namely, mechanotherapy.

There can be no doubt but that drugs are too freely employed in the treatment of disease, and that it would often be better for the patient, and more scientific, if less of them were used, and more reliance be placed in dietary and hygienic means. But drugs will never be entirely sup-

planted. There will always be recognized a vegetable and mineral materia medica, containing efficient remedies for the cure of disease. Massage, however, as it is termed, and electricity are becoming recognized, more and more, as curative agents of great value, and have already saved many a sick person, with a weak and delicate stomach, the necessity of swallowing a nauseous dose.

The word *massage* is derived from the French word *masser*, and means kneading. Yet kneading is only one of the many manipulations used; and there are diseases in which—to adopt the popular term—massage is used without any real kneading whatever taking place. Kneading presupposes the fingers actually pressed into the part manipulated. This occurs whenever soft tissues, or muscles, are manipulated; but when treatment involves some bony resistant part, as in frontal or supra-maxillary neuralgia, for instance, kneading is out of the question. Here we can only speak of stroking, or, at most, of stroking accompanied by pressure. When a sprained and swollen ankle is subjected to “massage,” there can, of course, be no question of true kneading, for it would be next to impossible to press the fingers into the tense and distended tissues. Here, too, the expression stroking combined with firm pressure would best convey the meaning. The process known as “pulling” will give a good idea of this manipulation.

Among the many diseases claimed to be treated successfully by mechano-therapy may be mentioned sciatica and crural neuralgia, cervico-brachial neuralgia, cephalalgia, muscular rheumatism, arthritic neuroses, palsies, narcotic poisoning, sprains, mastitis and tonsillitis, chronic metritis and parametritis, stiffness of joints and tendons, eye diseases, chlorosis, gastritis, phthisis, writer's cramp, etc. The work contains a great many illustrations, which will assist the reader very much in understanding the various manipulations described.

The work is worthy a place in every physician's library, as there is no doubt but that many ailments will yield readily to the treatment of massage that can only be cured by other means with great difficulty. All physicians know that by kneading and rubbing a part there will be an increased flow of blood to that part. Also, by the same method, it is known that resorption of exudations, transudations and infiltrations are produced; that by passive and active exercise of all the muscles the oxidizing powers of the blood are

increased and all the vegetative processes are stimulated; that congestion of the internal organs, as the brain, lungs, intestines, uterus, kidneys, etc., are relieved by increasing the flow of blood to the muscles. All the various manipulations are so clearly explained and illustrated by engravings that there can be no difficulty in understanding them.

THE TREATMENT OF HEMORRHOIDS BY INJECTIONS OF CARBOLIC ACID AND OTHER SUBSTANCES. By Silas T. Yount, M. D., Physician of St. Elizabeth's Hospital, Member of American Medical Association, Member of Indiana State Medical Society, etc. Printed at Lafayette, Ind. 24mo, pp. 63.

The seven chapters in this little book are devoted, as the title-page indicates, to the treatment of internal and external piles by the injection of carbolic acid and other agents. The first chapter describes the method of examining patients. The second chapter gives a list of instruments necessary to be used in treating hemorrhoids, and describes the mode of employing them. The instruments are: a rectal speculum, one glass or hard rubber syringe, small or medium size, an ordinary probe, sponges and an applicator, an ordinary hypodermic syringe with short and long needles. Besides these there will be needed several wide-mouthed bottles for containing the fluids to be injected.

Chapters five and six are devoted to the treatment of hemorrhoidal affections—palliative and curative. We would be pleased to quote from these chapters, but we have received the little work too near the time for closing the present issue of the NEWS to do so.

We commend the work to the attention of our readers. Though it is small, it seems to contain a large amount of valuable information. Piles are a source of great suffering, and the family physician sometimes has great trouble in treating them. Dr. Yount's little book, however, discloses an easy method of giving radical relief.

ANTIPYRIN FOR HEADACHE.—Various kinds of headache were promptly relieved at their onset by fifteen grain doses of antipyrin, in the hands of Dr. John Blake White, of New York.—*Medical Times*.

Editorial.

General Programme of the International Congress.

THE *Journal of the American Medical Association* publishes the following:

As there appears to be a very general desire, both at home and abroad, to have the programme of arrangements for the meeting of the International Medical Congress made public, I herewith submit the formula therefor, determined upon by the Committee of Arrangements intrusted with that duty.

First Day—Monday, September 5.—The Congress will assemble at Albaugh's Opera House at 11 A. M., and will be formally opened by the President of the United States, to be followed by a short address of welcome by the Secretary of State; address by the President of the Congress; report of Secretary-General and Chairman of Committee of Arrangements. Adjourn at 1:30 P. M. From 3 to 6 P. M., meeting of Sections at their respective halls. Evening *conversazione* at U. S. Pension Hall, from 8 to 11 P. M.

Second Day—Tuesday, September 6.—Meeting at 10 A. M. at Albaugh's Opera House. General Addresses by Drs. Flint and Semmola. Sections will meet at 11 A. M., and adjourn at the same hour with Congress at 1 P. M. In the afternoon, the Sections will meet from 3 to 6 P. M. In the evening, it is expected that a reception will be given by the President of the United States, and the Corcoran Art Gallery will be thrown open to the members and their families.

Third Day—Wednesday, September 7.—The Congress will meet at 10 A. M. General Addresses until 1 P. M. The Sections will meet as usual at 11 A. M., and adjourn at 1 P. M. Afternoon meeting of the Sections from 3 to 6 P. M. Evening reception to the members and their families by the citizens of Washington.

Fourth Day—Thursday, September 8.—General meeting at 10 A. M. Addresses, if not previously delivered. Meeting of the Sections at 11 A. M.; adjourn at 1 P. M. Afternoon, Sections meet from 3 to 6 P. M. General reception buffet banquet at U. S. Pension Hall, from 8 to 11 P. M.

Fifth Day—Friday, September 9.—General meeting at 10 A. M. Transactions of business affairs of Congress. Meeting

of Sections at 11 A. M., and adjourn at 1 P. M. Afternoon, Sections meet from 3 to 6 P. M.

Sixth Day—Saturday, September 10.—General meeting at 10 A. M. Adjourn at 11 for a visit to Mount Vernon.

On Sunday or Monday, the day not yet determined upon, an excursion train will leave Washington with the foreign members and their families for Niagara Falls, under the escort of a part of the Committee of Arrangements, selecting the route which will afford our foreign brethren an opportunity to see some of the most interesting and thrifty portions of our country, as well as very beautiful scenery.

In completing the details of this programme, it may be necessary to make some slight modifications.

I send herewith an important communication from the Chairman of the Sub-Committee on Transportation, Dr. J. W. H. Lovejoy.

ALEX. Y. P. GARNETT, M. D.,
Chairman of Committee of Arrangements.

RAILWAY RATES TO WASHINGTON.

The Railroad Associations which have already agreed to make a reduction of fare for members of the Congress and their families on the roads under their control, are:

The Trunk Line Association, the Central Traffic Association, the Newport News and Mississippi Valley Company, the Southern Passenger Association.

These cover the greater part of the territory east of the Missouri and Mississippi Rivers. The whole list of roads controlled by these Associations is too large for publication, but members can obtain all the necessary information by application to the railroad agent at the starting-point. They will be required to pay full fare to Washington, and a return will be allowed for "one-third the highest limited fare" on the Association's certificate. It will be necessary for these certificates to be procured before starting, and have upon them the receipt of the railroad agent for the full fare to Washington. Members intending to attend the Congress should, as soon as possible, make application to the undersigned for blank certificates of the Association over whose roads they intend to travel, and the blanks will be forwarded at as early a date as they can be obtained. A separate certificate will be required for each person.

J. W. H. LOVEJOY, M. D.,
Chairman Transportation Committee.

No. 900 12th Street, Washington, D. C.

DEFINITION OF MEDICAL COLLEGES IN GOOD STANDING.—The Illinois State Board of Health, at a recent meeting, passed a resolution which defines medical colleges in good standing in Illinois, as follows :

“Resolved, That the phrase ‘medical colleges in good standing’, in the first section of the ‘Act to Regulate the Practice of Medicine,’ approved June 16, 1887, is hereby defined to include only those colleges which shall, after the sessions of 1890–91, require four years of professional study, including any time spent with a preceptor, and three regular courses of lectures, as conditions of graduation, and shall otherwise conform to the schedule of minimum requirements heretofore adopted by the Board.”

The Illinois State Board of Health has done more than any other body in this country to elevate the profession by compelling the colleges to advance their requirements for graduating ; and the passage of the resolution which we have just quoted shows that they are continuing in their course. An impediment in the way of colleges themselves accomplishing anything in the way of increasing the requirements has been their inability in agreeing together upon any plan that might be suggested and working harmoniously in carrying it out. Colleges can do nothing unless there be unanimity. If one should announce among its conditions of graduation four years of study and attendance upon three courses of lectures, there would be great danger of its incurring a large loss of patronage so long as the other schools did not adopt the same conditions ; and it is very certain that unanimity in adopting the measure could not be obtained. For while all would probably assent to the desirability of it, many would excuse themselves on the ground that just at the time it would not be advisable for them to make any changes in their requirements for graduation.

But a State Board of Health of a great State like Illinois, in whose limits are several thousands of physicians, is in a position to compel unanimity. There is no college that would like to be placed upon the list of such a Board, as a college of not good standing. When such institutions as have been anxious for a long time to adopt a higher grade of requirements have made it necessary, in accordance with the Illinois resolution, that students in attendance upon their instructions shall study four years and attend three courses of lectures before being permitted to be candidates for graduation, the other schools who are disposed to plead that

they are not quite ready to do the same, will conclude that it would be better nevertheless to do so; otherwise a stigma of not being in good standing would be generally accepted in regard to them, which would certainly be very injurious to them.

We have no doubt but that the medical profession of this country will be greatly pleased with this action of the Illinois State Board, as well as with what it has done previously. The Board has undoubtedly the interests of the profession at heart, and is endeavoring to do all that it can to elevate it. There exists in the profession a vast amount of ignorance, and it is time that efforts should be made to eliminate some of it.

PREACHERS AND PHYSICIANS.—The *Commercial-Gazette*, of Cincinnati, has been drawing the attention of the community to the fact that there has been scarcely a Protestant minister at his post during the whole of the present summer; that all departed so soon as the hot weather set in, for the purpose of seeking cool, shady places where they could pass the time in fishing, or pursue other methods of recreation. We have no doubt but that the editor feels envious of the good time the clergy are having during the very hot weather that has been afflicting all the denizens of large cities; and that if it had been in his power to be off, he, too, would have gone. Envy is often at the bottom of persons finding fault with others and criticising them.

Although our work seldom allows us to seek recreation during the summer months, but compels us to labor right along throughout the year, the same in summer as in winter—yet, as we feel sure we would be off fishing if we had a chance, we do not feel annoyed because others are able to enjoy themselves and take advantage of the opportunity. It would be exceedingly pleasant, we know, to bask in the shade, to feel the cool breezes of the forests, to hear the birds sing, to see the green foliage of the trees and fields, and gather wild flowers; but business must be looked after before pleasure, we have always been taught, and as it is our business to visit the sick and administer to them, we must forego the pleasures of the country, of watering places, of the seaside, and attend to the duties incumbent upon us. But while we feel that our labors can not be let up even for a short time, we do not propose to become filled with jealousy because others are more fortunate.

Some will say that of course physicians can not spend from two to four months every summer in recreation, for the reason that people are as liable to get sick one time of the year as another, and that in summer epidemics are liable to occur. Also that babies are born in summer as well as in winter. Physicians consequently must always remain at their posts. Assuredly it would be calamitous, they say, since disease is always prevalent, for medical men to be off pleasuring when needed.

Some probably think that the preacher, too, is always needed ; that sin, like disease, is always active and needs to be met with constant opposing forces. How then can ministers be spared from their churches when wickedness is so prevalent—when vice and crime stalk about so boldly ?

Physicians are forced, as it were, to carry on with disease a hand to hand combat. When it finds lodgment in an individual it must be dislodged or the person succumbs. But the clergy, it seems to us, leave vice and crime to the police. They have but little to do with gross wickedness. They condemn it, of course, and maintain that open sinfulness is incompatible with a religious life. Their duties consist largely in instructing, and those whom they instruct are generally moral people.

Ministers in cities preach twice on Sunday and once on an evening during the week. They study their sermons, and those who possess talent and learning generally prepare very interesting and instructive sermons. But as there is always a tendency to monotony in instruction, after the pastor has preached through the winter and spring, and the hot weather begins to manifest itself, both he and the congregation begin to feel they would like a rest.

Now, who, under the circumstances, should object to ministers every year taking a few months' recreation? They instruct the congregations employing them, but there is no need of continuous labor on their part, as is the case with physicians. It is said that the apostles labored all the time, but it should be remembered that these are not apostolic days. We are living in modern times, and affairs are carried on after the modern style.

We are of the opinion that if the writer of the *Commercial-Gazette* were a church-goer he would be as ready to let the preacher go off on an excursion tour in summer as the preacher would be ready to go. But it is very probable that he never enters a church.

GERMAN AND AMERICAN MEDICAL STUDENTS.—In the *Journal* of August 6, is an interesting letter from Berlin, written by Dr. N. Senn, of Illinois. It was written to a friend of the writer, who permitted it to be published in the *Journal*.

At Halle, Dr. Senn says he saw a relic of the past age in the shape of four young gentlemen in full dress. At first sight he took them to be waiters in search of a place, who had mistaken the hospital for a hotel or first-class restaurant; but on inquiry he learned that they were candidates for graduation. It seems that it remains a custom in that city for candidates for graduation during their last semester, to appear in full dress. From being at first objects of curiosity to the Doctor, they became objects of sympathy; for they would be called into the forum by the professor and put through very severe examinations, in none of which would they acquit themselves creditably, and in consequence would receive the most scorching criticisms. Frequently they would fail to answer the simplest questions. But Dr. Senn thinks that the indignation of the instructors, at this stage of the young men's course was scarcely fair, and certainly could effect nothing, as it was then too late for them to make up their deficiency.

It is the custom with German teachers to do all the questioning at the end of the term, after the student has spent perhaps one, two, three or almost four years in idleness. Dr. Senn says that the professors in Germany should do as is done in America—submit the students to daily or at least weekly examinations throughout the entire time of study, and the results would be entirely different, vastly better. It is impossible to make up in a few months what should have been done for years. He says that there is no question in his mind that the average American student learns more in one month than the average German in three. He does this not because he has better teachers or better facilities, but because he makes better use of his time. He states that he is sure that in the last graduating class of his college in America there were at least a dozen students who, after studying medicine for three years, would pass a brilliant examination in any English or German university. They would have felt at home even in dress-coats in Volkmann's Klinik, passing their final examination. German students, by not being kept at study by frequent and severe examinations from the time they enter upon the study of medicine,

as is generally the case in America, spend their time in dueling, attending theaters and operas, and getting drunk.

There is no doubt that the methods of instructing in this country are much superior to those pursued in Europe. In Germany a medical student is expected to spend seven years in study before becoming a candidate for graduation. In the United States he studies not more than three, but in that time, in consequence of the incentives to study, he will become more proficient than the German student generally does in seven years.

REPORT OF THE ENGLISH COMMISSION ON PASTEUR'S HYDROPHOBIA INOCULATION.—The English Commission appointed in April, 1886, consisting of Sir James Paget, Sir Joseph Lister, Sir Henry Roscoe, Sir Richard Quain, Dr. Lauder Brunton, Prof. Burdon-Sanderson, Dr. George Fleming and Mr. Victor Horsley, has just presented its report to Parliament. This report, which is based upon observations made by certain members of the committee who visited M. Pasteur, and upon experiments performed by the secretary, Mr. Horsley, treats upon all the questions at issue, and is a powerful defense of M. Pasteur's method.

With regard to the first claim of M. Pasteur, that his inoculations were capable of protecting persons from the risk of infection if bitten by a rabid dog, the committee reports, "it may be deemed certain that M. Pasteur has discovered a method of protection from rabies comparable to that which vaccination affords against smallpox."

As to the second claim, that M. Pasteur has discovered a "treatment capable of preventing the development of the disease in persons bitten by rabid dogs," after considering all the observations of M. Pasteur and performing a number of experiments to test the same, the committee fully indorses it.

The commission has proved that the virus of hydrophobia, as claimed by M. Pasteur, is located in the medulla and spinal cord of the affected animal; that inoculation of this virus in healthy animals, dogs and rabbits, is, as well as the bite of rabid animals, capable of producing the disease, the only difference being that in the former case the stage of incubation is shorter; that this virus is attenuated by exposure of the organs in dry air; and, finally, that inoculation performed with this attenuated virus is capable of preventing the development of hydrophobia, provided this protective

inoculation be begun during the period of incubation. The committee estimates that not less than one hundred lives have been saved from October, 1885, to December, 1886, by M. Pasteur's treatment.

With regard to the stand taken by some of M. Pasteur's critics, that the inoculations and not the bite were the cause of the development of hydrophobia in some of the patients treated, the committee considers that there is no evidence to sustain such a position.

It has now been three or four months since this report was first published. Since then, from what we have learned through the medical journals, not a few medical men have changed their views in regard to the efficacy of Pasteur's inoculations in preventing hydrophobia.

POISONING BY NUTMEG.—A correspondent, in Toronto, of the *British Medical Journal*, sends to that journal an account of a young married woman, in the third month of her pregnancy, taking five powdered nutmegs, aggregating one drachm, in sugar and water, at one dose, to procure an abortion. While the uterus was in no way affected by the dose, yet three hours after taking the nutmegs, very serious symptoms were manifested. The woman's pulse ran up to 140, though her temperature was normal. Her only complaint was of an immense weight pressing upon her. She was delirious a few moments, calling loudly, and then sinking into a stupor, from which when aroused a return of the delirium would follow. Mustard and warm water were used as an emetic without bringing up much nutmeg. Castor oil was then given, followed by potassium bromide and ammoniated tincture of valerian. The patient recovered, with no apparent injury to her pregnant condition. The *Register* says that this is the second case of poisoning by nutmeg that has been brought to its notice. The first was published in the *British Medical Journal* May 14, 1887, and elicited this second report. We did not see the report of the first case. We have seen no statement as to what principle in the nutmeg constituted the poison.

HOT WEATHER.—We have the *Lancet*, of London, England, as authority, that the 16th of July was the hottest day that has been experienced in the United States for very many years. It states that the temperature in various cities

was as follows: "Pittsburg, 101° ; Washington and Baltimore, 99° ; Pekin (Illinois), 103° ; Joliet (Illinois), 113° ; St. Louis, 107° ; Chicago, 102° ." "The 17th of July," it says, "was the hottest day known in Philadelphia, with one exception in 1876, in thirty years. On the 18th the excessive heat continued, and many deaths from heat, as might be expected, occurred."

About the time mentioned by the *Lancet*, we know that the heat in this country was very great, and large numbers of fatal prostrations, in many of the large cities, occurred; but it is certainly mistaken in the statement that the thermometer in Joliet, Illinois, rose to 113° *in the shade*, and that it marked 107° in St. Louis. If we are not mistaken, in the latter city, the temperature was not over 103° . In Cincinnati, on the hottest days, the heat was about 101° . On one of the excessively hot days, the papers reported eighty-eight (88) cases of prostrations, many of which resulted fatally. It can be regarded as certain, that there were as many more cases that were not reported. In the sun, the thermometer marked, on the very hot days, from 130° to 135° , and yet hundreds of men worked, exposed to this great heat, from morning until night, paving the streets. It is astonishing to us that they were able to endure it.

IT IS NOT GOOD THAT MAN SHOULD BE ALONE.—The statement that is made in the expression which forms the heading of this article, we do not claim is original with us; for if our readers will turn to the second chapter of Genesis and the eighteenth verse, they will find it. Adam, it is said, gave names to all cattle and to the fowls of the air and to every beast of the field; yet, notwithstanding this stupendous labor which had devolved upon him, he had no one to assist him. In the language of the Good Book: "But for Adam, there was not found a helpmeet for him."

We have the authority of the Creator—certainly the highest authority of the universe—that a man needs a helpmeet; it is not good for him to be alone. And the helpmeet that is adapted to his wants is a woman. No man can carry out the purpose of his being unless he has a woman to assist him. Though women are regarded as possessing less intellectual strength than men—are not as capable of reasoning and forming conclusions—yet no man can find so safe and competent an adviser as a wife. We never knew a

man to fail and come to naught who was in the habit of consulting his wife on all important subjects which concerned him. It is difficult to understand, we confess, why the advice of one should not have the preference who is known to be a person of great intelligence and sound judgment; but it is a fact nevertheless that the man who seeks the counsel of the wiseacres of his own sex and neglects that of his wife, because, forsooth, being a woman she has not the mental strength that men are supposed to have, will be constantly making blunders, and oftentimes very disastrous ones.

We would like very much to occupy several pages in showing how exceedingly essential it is for a man to have a helpmeet, such as the Lord made for Adam, in the discharge of his duties while a sojourner in the world, but that is not the object we had in view when we took our pen in hand. We began our writing to announce to the readers of the *MEDICAL NEWS* that we have received a card on which is printed the following:

Mr. and Mrs. C. M. Loomis
request the pleasure of your company at the marriage ceremony of their daughter,
Hattie Adele,
to
Dr. William C. Wile,
Thursday evening, September 1,
at 7 o'clock.
First Methodist Church,
New Haven, Conn.

Dr. Wm. C. Wile, who has thus concluded to take a wife, was formerly the distinguished editor of the *New England Medical Monthly*, one of the most ably edited monthly medical journals of this country. He is at present associated with Dr. John V. Shoemaker, as editor of the *Medical Register*, of Philadelphia, a new weekly medical journal begun about a year and a half ago. He has already attained to a high position in the profession, and will undoubtedly reach a still higher position. We congratulate the Doctor for the very commendable step he has taken in abandoning his bachelor life and, like a man of sense, becoming a benedict. No one can better appreciate a wife than a physician. He, more than other men, sees the private life of individuals, and consequently comes sooner to know how

necessary it is for man to have a helpmeet in the form of a good woman. We most heartily wish him long life with his wife, and the greatest amount of happiness.

NEURALGIA, NERVOUS EXHAUSTION. —Dr. Thomas Powell, of Indiana, writes that for several months he has prescribed Celerina in severe cases of neuralgia, accompanied and in some measure dependent on nervous exhaustion caused by mental worry, overwork, loss of sleep and other depressing causes, with the happiest results. In fact, he says that it has given him more satisfaction in these cases than any other remedy he has ever used. He reports the case of a gentleman who had been troubled for two years with neuralgic pains in the left side and shoulder, irregular appetite and nervous exhaustion. He had treated him with some benefit by the administration of quinine, iron, strychnia and the phosphates, but the benefit was not permanent. He then made use of Celerina with most satisfactory results. Celerina is manufactured by the Rio Chemical Co., of St. Louis, and we advise our readers to send to them for a sample of Celerina and try it.

HOW TO BECOME A MEMBER OF THE INTERNATIONAL MEDICAL CONGRESS. —It has frequently been inquired of us what proceeding was necessary in order to become a member of the International Medical Congress which will assemble in Washington at twelve o'clock, noon, September 5. We will reply by quoting from Circular 2, issued by the local committee of the Congress: "The Congress will consist of such members of the regular medical profession as shall have registered and taken out their tickets of admission, and of such other scientific men as the executive committee of the Congress shall deem it desirable to admit."

STYES. —Styes are such troublesome little ailments that the following remedy for their cure, recommended by M. Abadil, may be welcome:

R_x Acidi boracis, 10 grammes;
 Aquæ dest., 300 grammes. Dissolve.

With a wetted piece of wadding drop some of this solution on the styne several times a day. It is said not only to effect a cure, but to prevent a return of the annoyance.

THE CINCINNATI MEDICAL NEWS.

VOL. XX. No. 237.	}	SEPTEMBER, 1887.	}	VOL. XVI. No. 9.
Old Series.				New Series.

Original Contributions.

A Word Reminiscent and Expectant Concerning Salol, the Salicylate of Phenol.

BY WILLARD H. MORSE, M. D., WESTFIELD, N. J.

Editor MEDICAL NEWS:

I did not visit Switzerland for alpine or other romantic sake, but solely for a visit to a town of which the tourist rarely hears, and never sees—the town of Frienisberg, in the Canton of Berne. In the autumn of 1885, I had a delightful day at the Deaf and Dumb Hospital at South Boston, and as I was leaving, Dr. Anagnos, or one of his assistants, assured me that when abroad I would find, of all the European institutions of the kind, the Deaf and Dumb Hospital at Frienisberg the most interesting. I entered the name on my list, and for no other purpose came into Switzerland from Italy. It was on a Sunday in April, and on the following day I went out to Waldau to the Cantonal Lunatic Asylum. Tuesday was a very stormy day, and because of the ladies in the party, we remained in Berne to await the cessation of the storm. With some difficulty I reached the *inselspital*, where I saw little worth seeing save and except one of the staff—a gentleman from Biel. He was a genial old man, and to emphasize his geniality he called later in the day at the hotel to invite my attendance at the meeting of the Medico-Pharmaceutical Society.

“Will it be dull?” I asked.

“It will not be dull,” he answered, and he was right. I can not think of anything in the way of a “society” more

unique, or more unlike what goes by the same name in this country. It might be proper to describe it as a social club of the Pickwick order, composed of the physicians and druggists of the Canton, the latter standing on the same plane with the former, and the professors of the University and of the Progymnasia also members.

The proceedings resembled those of a Methodist "experience meeting." One after another of the members would rise in his place and tell what he had done, seen or felt. The chairman would "put out the questions" from a sheet of paper in his hand, mixing pharmacy, surgery and medicine in a hodge-podge.

"Emphysema," he would call out, and some member would rise and describe a treatment with iodide of potassium.

"Ergotin," and a narration of its application in albuminuria followed.

Presently the word was "sparteine," and it was described as useful for mitral insufficiency and myocarditis by a druggist named St. Salle. If I wondered over this drug, I wondered more when, after a turn with cocaine, the President announced "salol." Another pharmacist, a little man whom I found was called M. Sahli, arose to respond. My companion gave me the cue. One of the University faculty, M. Von Nencki, had in the winter brought forth a salicylate of phenol, by combining salicylic and carbolic acids, and had presented the unctuous white powder to the society as an antiseptic and antipyretic. He had also discovered upon animal experimentation that it is decomposed within one to three hours without constitutental modification, by the pancreatic juice, the consequence of which duodenal action was an absence of nausea and other disagreeable gastric symptoms.

M. Sahli began by thanking the presiding officer for saying salol instead of salicylate of phenol, and then, with some asperity, stated that, though the professor had described the dose of his new drug as one drachm *per diem*, he, in self-experiment, and in treating patients, was in the habit of giving it in dosage of four scruples to two drachms. Von Nenckli found the entire quantity of the salt excreted by the kidneys under the forms of sulpho-phenol and a urate of of salicyl. He (Sahli) had found that it colored the urine almost black, and yielded a red precipitate with muriate of iron. As to its therapy, he bore evidence to its value in rheumatism, urticaria, neuralgia, and in phthisis (as an antipyretic) in doses of thirty grains *ter die*. As an antiseptic

he had used it in ozæna and ottorrhœa, and thought it indicated in gonorrhœa, intestinal catarrh, typhoid fever, cholera, diabetes, etc. "We all must try it," he said in conclusion, "as the results attending its use must be satisfactory."

Another speaker said that he had used the new salt as a dentrifice, and thought that it acted prophylactic of dental caries. Another spoke of its tastelessness and non-nauseating qualities. Another still of its insolubility in water, and of its aromatic odor. Other speakers confirmed all that had been said, and the unanimous voice was in favor of more extensive trials of the drug in septic diseases, rheumatism and fevers.

Though interesting at the moment, I am quite free to say that I might have forgotten all about salol, if it had not been for a matter of subsequent experience. Do not think this at all odd, for in the course of my trip I had met with such new or newish drugs as piperonal, terpine, sparteine, antipyrine, and sundry other *enes*; all good enough, I dare say, but all soon forgotten. Salol was a candidate for a like retirement to forgetfulness, when on occasion of a day at Goerlitz I had it again brought to mind. A young German, who, after long suffering with chronic rheumatism, had returned to Vaterland from Chicago a miserable cripple, came to our notice in perfect health. In answer to our questions, he said that he had been treated at the town hospital, and that it was "a common thing for rheumatic patients to be perfectly cured" there. Out of curiosity, I saw two of the members of the hospital staff, Doctors Kleefeldt and Georgi. Their answer was that they used salol, which had recommended itself by its constituents.

"I consider it a specific in rheumatism," were the words of Dr. Kleefeldt, who, by the way, has recently sent me a full report of his "TREATMENT OF THIRTY-FIVE CASES," as contained in the fourth number of the current volume of the *Berliner Klinische Wochenschrift*. In this paper, after speaking of the specific action of the salt, he goes on to say that it is preferable to salicylic acid, and the antipyretics, because no untoward symptoms follow its use, and because it has neither odor nor taste. His full dose is only half of a drachm, the ordinary dose but half of this amount.

The composition of the salt in Berne is sixty-two parts salicylic acid and forty-eight of carbolic acid. In Germany the proportion is an even sixty to forty per cent.

While we have to mark the almost too frequent tendency of substitution of new for old remedies, we can not but, in the case of salol, admit it as notably wise. From having known it in its earliest Swiss days, and from having had of it the good report at Goerlitz, I can not deny that in it I have felt an interest that, after a year of growth, is fully established as developed. The demand for it is being met in this country by an article (62-38) quite like the original Swiss preparation, and it is worthy of note that, in the practice of the leading physicians of the metropolis, it has not only furnished successful results, but has proved free from the objectionable effects of salicylic acid—a happy and acceptable addition to our *materia medica*.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS, from the French, by Dr. Illowy,
Cincinnati, Ohio.

THE TREATMENT OF CONSTIPATION BY ABDOMINAL MASSAGE. BY DR. GEORGE BERNE.

ALTHOUGH a symptom arising from many causes, still, most frequently, constipation is due either to an atony of the muscular tunic of the large intestine and a diminution of its contractility, to a deficient secretion of intestinal juices or of the bile, or to a mechanical obstacle preventing the stercoral matters from taking their natural course (hardened fæces, etc.). Without insisting on all these well-known causes, we would recall the fact that constipation frequently supervenes in the course of diverse affections of the nervous system (hysteria, medullary lesions, etc.). In this category of lesions, the diminution of contractility affects at the same time the muscles of the abdomen and the muscular tunic of the intestines. What serious disturbances may result from constipation (intestinal occlusion, progressive atony, enormous dilatation of the intestine, etc., and of psychic phenomena, hypochondria and its consequences) is well known.

We have had occasion to treat with massage a certain number of cases of obstinate constipation, in which all other therapeutic measures had failed.

Manner of Procedure. We have practiced abdominal-massage as it is done in Holland and Germany, but we have

introduced certain modifications of our own which will be explained further on.

After having kneaded the integument, then the abdominal muscles, we press lightly on the cæcal region by means of the palmar extremity of the last four fingers, then with the closed fist very profound massage of the whole colon is made. An enemy of all brutality, we believe that this massage should be both easy and very profound at the same time. We think it beneficial to make some pressure on the bottom of the gall bladder, which is very accessible, the patient being inclined slightly forward.

1. We advise that the organs adjacent to the large intestine be carefully interrogated so that we may be certain that no contraindications, in the shape of tumors, pregnancy, inflammation, etc., exist. 2. To have the patient urinate before the beginning of the seance, so as to facilitate deep pressure. 3. To investigate if any calculi exist in the gall bladder. In the cases where examination should disclose the presence of hepatic calculi, we must avoid making pressure on that portion of the transverse colon which is adjacent to the gall bladder; for the sudden collision of these calculi might produce lesions of the mucous membrane of this reservoir of bile, which, lying behind the false ribs, responds thus to the corresponding part of the transverse colon.

Undoubtedly, in making massage of the colon, the fingers press on the gall bladder and favor thus the expulsion of the bile toward the duodenum. Besides the mechanical action produced by the pressure of the hand, the gall bladder may be indirectly stimulated in its contractility; to-day the presence of muscular fibres in the walls of the gall bladder is considered an accomplished fact. Halle, Zimmermann, Mayendre, Brucke, have established experimentally the contractility of this reservoir of the bile. It is well to remember the fact that excitation of the intestine in the neighborhood of the ductus choledochus provokes reflex by a contraction of the gall bladder. And when we make massage of the large intestine we certainly do not intend this alone to be affected; simultaneous excitation of the small intestine is produced at the same time by these maneuvers. So far as we are concerned, we knead, besides the colon, the whole intestinal mass, in all our patients. Without expressing ourselves as to any favorable action the presence of the bile may have on the intestinal contractions, we believe it rational

to solicit the passage of the bile into the duodenum, whence it will flow into the large intestine. We consider this practice as rendering more perfect the habitual maneuvers of massage.

Massage should, moreover, stimulate the intra-abdominal circulation; it is well known that arterial blood is stimulating through the oxygen it contains; carbonic acid, on the other hand, diminishes the excitability of the muscular fibre (a fact observed in cases of sanguine stasis or of local slowing of the circulation.—*Schiff*). It can be said, with Richet, that the mechanical excitants cause the cellules to react, and that the rapidity of circulation is increased in the muscle that contracts. If direct excitation of the large intestine provokes, in the animal under experiment, less intense movements than that of the small intestines, they have all the characteristics of it. Among the various parts of the large intestine it is the ascending colon which seems to contract with the greatest energy. It is, in fact, at this point that the muscular fibres of the intestine have a greater obstacle to overcome in a vertical and ascending direction, if their action be compared with that of other parts of the colon; it is, therefore, at this point that the massage should be the most energetic.

In the cases where hardened fæcal masses obstruct the intestine, massage is the best means that can be employed to triturate these masses and to expedite mechanically their expulsion. This measure is to be recommended before all other intervention, in cases of intestinal obstruction caused by the accumulation of fæces.

The nerves of the large intestine coming from the great sympathetic, by the superior mesenteric plexus (emanating from the solar plexus) and by the inferior mesenteric plexus (emanating from the lombo-aortic plexus), it is rational to presume that excitations produced by massage, directly in the region of the nervous centers (solar plexus) and indirectly by intermediation of the intestinal parietes, would evoke the reflexes which govern the secretion of the intestine and the contractions of the same. We know, in fact, that whilst excitation of the pneumogastric nerves arrests the peristaltic movements, excitation of the solar plexus provokes contractions of the muscular coat of the intestine.

En Résumé. 1. Abdominal massage is *always an in-offensive, and salutary* measure for the treatment of obstinate

constipation, in addition to the therapeutic means usually employed.

2. The duration of each seance should be from fifteen to twenty minutes. They should be daily in the first period of treatment.

3. Natural stools come on generally after the sixth seance. The effect of the treatment continues even after the suspension of the massage.

4. We recommend to press lightly about the fundus of the gall bladder, to solicit the contractions of this reservoir in order to induce the bile to flow toward the large intestine. This manuever is peculiar to us, and completes advantageously the process of massage as known at present.

5. Massage, whilst provoking a more abundant secretion of the intestinal juice, stimulates the contractility of the large intestine by acting on the intravisceral diastaltic system.

6. In the absence of all reflex phenomena, massage acts mechanically and facilitates the onward movement of the contents of the intestine.—*Journal de Med. de Paris*.

TREATMENT OF UMBILICAL HERNIA. BY OLSHAUSEN.

After referring to the operations of Breus, Lindfors, Felsenreich, Krukenberg, Stadtfeldt, which consist in opening the sack and a consecutive suture, the author reports a case occurring in his practice: A little girl weighing 4,280 grammes; macroglossa; voluminous umbilical hernia containing intestines. Umbilical orifice four centimeters in diameter. Half an hour after birth some bubbles of air are discovered beneath the sack, and the sack is found slightly ruptured, it is isolated by a ligature. Three hours and a half afterward, operation; dissection of the sack of the skin from the amnios and the gelatine of Wharton (which was very abundant). Ligation of the umbilical vessels with catgut; suture (deep suture with silk and superficial with catgut) of the borders of the wound (six centimeters and a half). Dressing: Iodoform, carbolized gauze, and circular strips of diachylon plaster. Secondary hemorrhage; union of two-thirds by first intention, the balance heals by super-peritoneal granulations, which leave a large cicatrix. Cure. (Later autopsie.)—*Union Med. de Canada*.

GLYCOSURIA IN THE COURSE OF STRANGULATED HERNIA, AND INTERNAL STRANGULATIONS.

Dr. Vincent publishes in the *Journal de Medicine de Bordeaux* the result of his investigations of the urine of a

certain number of cases of strangulated hernia and internal strangulations. In all of these he found sugar present in the urine in larger or smaller quantity. In all these cases the glycosuria preceded surgical interference. In all these cases, six in number, the sugar disappeared rapidly from the urine (in from two to four days) after the strangulation had been relieved, either by taxis or by other operation. Evidently all complications that may arise in the course of such an operation can retard the disappearance of the sugar, Dr. Redard having demonstrated in a recent memoir that suppuration may determine a glycosuria.—(*Journal de Med. and de Ch.*, April, 1887.)

TONSILLITIS. — Dr. Lebrun treats acute tonsillitis antiseptically, believing the disease to be of an infectious nature. He uses an antiseptic gargle.

R _x .	Acid. Borac.,	8.0 grms.
	Eau De Payliari,	40 0 grms.
	Aq. Destill,	250.0 grms.

M.

He also paints the tonsils with an iodoform collodion. —*Ibid.*

Gray Atrophy of the Optic Nerve and its Relation to Facial Erysipelas.

BY WILLIAM DICKINSON, M.D., ST. LOUIS, MO.

Read before the Missouri State Medical Society.

THE faculty of vision being generally regarded as the most valuable of our senses, any considerable impairment of it, especially when progressive, very properly occasions serious alarm. But yielding to the delusive hope that this condition may be temporary and transient, the better judgment often becomes perverted, consequently this symptom rarely receives that degree of appreciation and attention to which it is entitled, and, therefore, surgical aid is postponed. But when this impairment has rapidly progressed, or blindness is fearfully imminent, then the services of the physician are sought. Too often it is *then* discovered that the period during which the most successful treatment might have been rendered is passed and no well-grounded expectation of restoration can be entertained. Whereas, if in the early

stages of its invasion appropriate treatment had been sought and rendered, the disease might have been, at least, arrested and, perhaps, a complete cure effected. Hitherto the responsibility of the case has been wholly with the patient, but when once the physician has been consulted, and his opinion and advice have been obtained, he then must share with his patient in the responsibility of the results. It is, therefore, of infinite moment what his advice shall be. His ears being filled with innumerable complaints which are really trivial, he is prone to underestimate the significance of symptoms complained of in respect to the eye also.

For the purpose of inveighing against this common disregard, and of giving emphasis to the real significance and grave import of the symptom, progressive loss, decline of vision, I have prepared and beg to submit this brief paper. This symptom may result from quite a large number of causes, some of which may be very difficult or impossible to detect. Since, therefore, it is not always possible to summon intelligibly and definitively the relation of effect to cause, I consider myself fortunate, not only in being able, in the case to be presented, to refer it to gray atrophy of the optic nerve, but also to trace its origin to causes more remote and to ascribe this condition most unequivocally to "Facial erysipelas" as the primal cause.

"Gray atrophy" is the term employed in ophthalmology, descriptive of a condition which the optic disk, *i. e.*, the place of entrance of the optic nerve into the globe, presents to the eye of the observer. It is a symptom only, and a sequel of a disease usually still in progress, and powerfully affecting the nutrition of the nerve. Cause and effect being progressive, their termination if unrestrained is in total annihilation of vision. This is one of the forms of impaired vision which, before the introduction of the ophthalmoscope, was relegated to amaurosis as the cause; a term even then vague and unsatisfactory, but which was employed to include that catalogue of unknown affections of which blindness was the chief symptom, and which *Walther* describes as "a state in which the patient sees nothing and the surgeon nothing likewise."

Two forms of nerve atrophy are recognized—the white and the gray. The optic disk of different persons may, however, present different degrees of departure from the normal reddish-white color and still be within physiological limits; but there is a limit, appreciated by the educated eye,

beyond which the presence of disease is indicated, and when great deviations exist they constitute an abnormality full of portentous significance.

With sufficient precision for present purposes, the white or gray color of the optic disk is due to the absence of capillaries, and the simultaneous increase of the connective tissue elements which normally envelop the optic nerve fibers that transmit visual impressions received upon the retina to the visual centers in the brain. In consequence of the unyielding nature of the sheaths of the optic nerve, and the proliferation of tissue, the optic nerve fibers are subjected to great compression; their conductive faculty, at first impaired, is at last annihilated. The gray color is first observed in the temporal portions of the disk. This is a perfectly natural result, since the nerve fibers are here less in number. The nasal portion of the disk may remain for a long time unaffected, but with the progress of the disease on which the atrophy depends these portions at last succumb and pass through the same transformation, and when it is complete, useful vision is destroyed.

Any cause capable of preventing capillary circulation of a part produces anæmia and pallidity. The capillaries of the optic disk are not an exception. These capillaries are derived in common with those of the pia mater, from the anterior cerebral arteries, and in consequence of the abnormal amount of connective tissue within the sheaths of the optic nerve and the unyielding character of the sheaths themselves they are subjected to compression, and white or gray atrophy result.

The retinal vessels also, though having a different source of origin (the central artery), can not escape this general compression. Great reduction in number and size takes place; they often appear as small red threads upon the blanched optic disk. In some instances they are reduced to a single attenuated artery and vein, the sole representatives of the normal abundant vascular supply.

Another pathological condition is sometimes present, viz.: excavation of the optic disk, due to this atrophic process. The disk then assumes the condition observed in the early stages of glaucoma, posterior staphyloma, a protrusion of the disk backward. The retinal arteries then may appear to enter the globe—not from the center of the disk, but eccentrically, and the vessels themselves in reaching the retina seem to make an abrupt curve over the margin of the disk.

Optic nerve atrophy is more common in males than in females: no age is exempt from its invasion. It may supervene from causes so occult and insidious or so long existent and not declared as to defy the most searching and patient endeavors to penetrate to and ascertain the original cause. But from whatever cause, the immediate effect in manner is purely mechanical, resulting in compression of the nutrient arteries, progressive impairment and final annihilation of vision. It has been observed as a sequel of typhoid fever, intermittent fever, scarlatina, herpes zoster of the face, menstrual irregularities, diabetes, hydrocephalus, effusion into the cerebral ventricles, excessive use of tobacco, exposure to strong sunlight, etc.

I have had well-marked cases of gray atrophy of the optic nerve from each of the following causes, viz.: locomotor ataxia, syphilis, sexual excesses, and from erysipelas. The case which I shall relate occurred as a sequel of the last cause cited, viz.: erysipelas. A special interest attaches to this case, since it is rare that the relation of effect and antecedent cause can be so unequivocally established as in this. The premises being well pronounced, the sequences so direct and conclusive, the logic of the case becomes incontrovertible. Good vision existed prior to the attack (except being presbyopic): a rapid decline of vision supervened immediately afterward, and its legitimate cause, gray atrophy of the optic nerve, being readily demonstrable. It is the last case of the kind that has come under my observation, and is presented in the eyes of a married woman, mother of two children, fifty-three years of age, and living a hundred and fifty miles distant. She has enjoyed good health during her entire life; subject to sick headache in early years, but not recently; in size above the average, and robust in form and feature. She first presented herself April 30th of the present year. She gives the following history, viz.: "I consulted nearly all the physicians in the vicinity of my home, who, without exception, stated that my impaired vision was due to lenticular cataract, and, advising an operation, commended me to different oculists for this purpose. One of them, however, more zealous than the others, assured me that I need not go away from home for the operation, as he could operate and remove the cataract as well as any other person; and that he had already had experience in the treatment of eye diseases and in the operations performed. I did not have faith in his judgment

and ability, and therefore declined to accept his services. My vision had always been good till about two years since, when it began to fail. I then procured glasses. These gave me the full and splendid use of my eyes till last December. Having retired at night in usual health, early in the morning I was attacked with a chill. This was followed by a severe attack of erysipelas of the face; the integument was very much swollen; the eyelids were for two days entirely closed; suffered severe pain in the occiput. Friends state that during one evening my mind was flighty. The disease gradually subsided, but during convalescence I discovered my eyes were in a terrible condition. I sought relief in my glasses; but these, so useful before, now rendered me no benefit; vision continued rapidly to decline, it being perceptible from day to day. I then procured another pair of glasses; these gave me some assistance for a short time, but soon ceased to be of much service. At this time I accidentally ascertained that my right eye was blind, or practically so. In this condition I have remained till now, vision continuing to decline, but not as rapidly with the left eye as with the right. With glasses ($\frac{1}{11}$) I can see to read hesitatingly the ordinary print of a book, but with obvious effort, and accompanied by a sense of fatigue."

Upon examination I found the vision of the right eye almost entirely wanting. When C was held up thirteen inches before it she could vaguely see a dark object, but not sufficiently distinct to follow with the finger the outline of the letter C, three and a half inches long, which the normal eye should distinguish at two hundred feet. The left eye, with a glass of eleven inches focus, discerns, but with effort, ordinary print as stated. All the dioptric media were clear and normal, not the slightest presence of opacity of the lens, constituting cataract, which the incipient oculist alluded to had declared to exist, and which, in his blind eagerness to display his surgical prowess, he proposed to remove by operation. But "optic nerve atrophy" was indubitably present. The optic disk presented the characteristic grayish color throughout its entire expanse; atrophic excavation also of the disk to a considerable degree. The entrance of the retinal vessels was not central, but at a point nearer the temporal margin; the retinal vessels themselves were much diminished in number and size.

These conditions, more pronounced in the right eye than in the left, admitted of but one diagnosis and only one

prognosis, which was unfavorable. Still, she was informed that without an effort being first made for amelioration she ought not to despair, since, possibly, by persistent and intelligent employment of means and agencies at command, lost ground, to some extent, *might* be regained. I advised her to submit to treatment for at least three weeks; if at the expiration of this period benefit should be realized, she would then be encouraged to continue treatment for a longer time. As a tentative measure, I applied galvanism. Immediately thereafter she said she could see more clearly, and with the right eye could quite distinctly perceive the movements of the hand of a friend ten feet distant. She concluded to try the effects of treatment, and on the next day saw the larger letter (three and a half inch) more distinctly. I again applied galvanism for about three minutes. May 2d reports still further improvement; ordered pills of hydrg. prot. iod., gr. one-third each, two of which to be taken three times daily, avoiding catharsis and the specific effects of the mercury. May 3d: Objects about room, especially pictures, more distinctly seen, and thus on to date improvement has been daily manifest, till letters one inch in length can now be discerned. Vision of left has improved in a corresponding degree. Greater benefit has been achieved in the ten days of trial than I had dared to expect in the three weeks designated. It is, of course, problematical how much vision will be eventually regained, but present prospects abundantly justify the continuance of effort. Arrest seems to have been secured, and even some lost ground regained. Vision certainly has been improved, and the probabilities are fair that still greater improvement will be obtained.

The points which I have attempted to illustrate and desire to enforce are:

1st. That facial erysipelas is capable of producing "atrophy of the optic nerve," the issue of which is practical or total blindness.

2d. The importance of detecting early, optic nerve atrophy, from whatever disease it may be the consequential result.

3d. That neglect to obtain appropriate treatment for the causes of impaired vision is full of danger.

4th. The importance of making an early and correct diagnosis of ocular affections, that the frequent error may not be repeated, of ascribing to cataract, which, in reality,

does not exist, a defect which depends upon conditions of the optic nerve.

DISCUSSION.

Dr. Halley was quite sure that three minutes' use of electricity, when skillfully applied, could be productive of good.

Dr. Maughs did not believe much in electricity as a remedial agent. Thought the case most probably syphilitic, thus accounting for the cure. Men often forget they ever had syphilis, marry, and infect their wives.

Dr. Hurt did not believe the therapeutics proved such a diagnosis.

Dr. J. R. Hall believed that mercury and iodine would often dispel connective tissue thickening, no matter what the cause, as for example, that in fibroid phthisis.

Dr. Griffith agreed with Dr. Hall.

Dr. Young called attention to errors of refraction, and to the often dangerous results ensuing upon the wearing of glasses supplied by those ignorant of the subject of errors of refraction.

Dr. Dickinson explained his method of applying electricity.

The Chief Source of Danger in the Use of the Uterine Sound.

BY GEO. F. FRENCH, A. M., M. D.,

Clinical Professor of Gynecology, Minnesota Hospital College, Minneapolis, Minn.

Read in the Section on Obstetrics and Diseases of Women, at the Thirty-Eighth Annual Meeting of the American Medical Association, June, 1887.

It is the prevailing opinion of the medical profession that the principal danger to guard against in probing or sounding the uterus is traumatic lesion from incautious handling of the instrument. This is also the teaching, positively or negatively, of nearly all the leading text-books on Gynecology; including those of such eminent authors as Emmet, Thomas, Goodell, Mundé, Hewitt and Courty.

In the third edition of the "Principles and Practice of Gynecology" Emmet says: "Many a poor woman has endured years of bad health from the carelessness of her physician, in overlooking a latent cellulitis, which became re-

kindled by the unskillful use of the probe or sound." Every student of this great master leaves his book with the impression that lesion from rough or incautious handling of the instrument is the danger chiefly to be borne in mind. Conformably to this view, Dr. E. C. Dudley, in his recent contribution to Pepper's "System of Medicine," conveys at once his own opinion on the subject as well as his impression of Emmet's teaching, that traumatism is *the* danger to be averted, by quoting him as to the dangerous use of the sound "from frequent lighting and relighting of pelvic inflammation *by injudicious slight manipulations.*"

Writing on the same subject, Mundé says: "The dangers attending the introduction of the sound are, the production of uterine colic or actual collapse from shock, a temporary affair, and of inflammatory reaction in the serous or cellular tissue of the pelvis. . . . The precautions to be observed in using the uterine sound or probe, are chiefly comprised in the two words, *delicacy* and *gentleness.*" In the English edition of Schroeder, which appeared in Ziemssen's "Cyclopædia," he says: "As a rule I consider the sound harmless, provided it is employed by an experienced hand;" but in the last German edition, 1886, he adds: "If there is no abrasion of the mucous membrane *nor infectious matter on the sound.*"

In the fourth edition of Graily Hewitt's work on "The Diseases of Women" there is not a word of caution, but the simple statement "that as a general rule, patients experience no inconvenience from the use of the sound if it be carefully introduced."

In the fifth edition of Thomas' classical work, "The Diseases of Women," the author himself expresses no definite opinion on this subject, but quotes Nonat and Scanzoni to show that for some reason sounding the uterus is very hazardous. The former says: "On account of the accidents which sounding may excite, it should only be resorted to with great caution, and in those cases where its necessity is clearly shown." The latter, Thomas tells us, acknowledges "that the uterine sound is by no means so harmless as has been asserted."

From Chrobak's contribution to Billroth's "Hand-book of Diseases of Women" I extract the following: "Since Broca in 1854 published the first case of death resulting from the introduction of the sound, the number of this class of cases, published, is quite large: still larger the number

where a slight or severe sickness (without fatal result) followed."

Now, when we consider the remarkable tolerance of the uterus of such surgical procedures as curetting, divulsing, not to mention accidental perforation, it appears to me that some more obvious cause must be found to account for the apprehensions expressed by the authors just quoted. This prolific source of danger, comparatively unrecognized, lies, I believe, in septic matter conveyed into the uterine cavity by the non-disinfecting sound. When we study the histological nature of the uterine cavity the danger becomes apparent. We can all remember when traumatism was the bugbear which deterred us from entering the peritoneal cavity; and when, every now and then, a healthy patient succumbed to cystitis, (as the death certificate read) after merely being catheterized, we regarded it as due to traumatic shock. But we have learned better. I can myself recall many cases of grave cellulitis and peritonitis during the past twenty years, which, explained by traumatism, were unaccountably mysterious; but as due to septic infection, are painfully easy to comprehend. Some surgeons like Mundé and Tait are so absolutely clean in their methods of performing surgical work, no septic results occur, though apparently they ignore this principal source of danger and are conscious of guarding against traumatic lesion only. Thus Mundé sounded the uterus five thousand times without a single catastrophe: which only proves to my mind that Mundé practices better than he preaches. A criticism equally true of the Pyo-Salpingist of Birmingham.

I would by no means detract one iota from the importance of delicate manipulation in exploring the uterine cavity, but I maintain that the danger from traumatic lesion is completely overshadowed by that from septic infection. The enunciation by Næggerath, in 1872, of the doctrine of latent gonorrhœa as a potent cause of pyo-salpinx is but just now fully recognized, and instead of regarding Næggerath's discovery as an isolated and exceptional fact, I believe it is one of a large group of facts illustrating a general principle.

LeBec has investigated the course of the lymphatics of the upper portion of the vagina and cervix, and alleges that they pass below and outside the base of the broad ligament to the obturator glands which communicate with the inguinal glands. In the cervix the lymphatics of the mucous

membrane are connected with the sacular sinuses extending near the epithelium of the inner surface of the mucous membrane (Lindgren). In the muscular layer we have lymph-vessels and lymph-spaces; the lymph-vessels are most abundant in the external muscular layer and are connected with the lymph-vessels of the mucous and serous layers and run into large valved canals at the side of the uterus. Thus the lymph passes from the mucous membrane lymph-spaces into the vessels and spaces of the muscular bundles up to the serous coat, and then passes into large tubes in the broad ligament. Leopold considers the uterine mucous membrane as a lymphatic gland or lymphatic surface, intersected with glands and blood-vessels, the lymphatics being not mere vessels, but spaces between the connective tissue bundles.

To the author of these anatomical researches, D. Berry Hart, the collaborator of a clever work on Gynecology, which he modestly styles a manual, belongs the distinction of being the first among English-speaking writers to systematically call the attention of the profession to this still unappreciated danger. We have, then, to look to Edinburgh for an advanced view like the following: The great dangers to the patient from the passage of the uterine sound, are abortion and abrasion of the mucous membrane, *with absorption of septic matter* and resulting cellulitis or peritonitis." Two cases of this nature are reported by Sanger, of Leipzig.

It is manifest that a gonorrheal pyo-salpinx might be communicated as readily by an infected sound as by the extension of the disease from the vagina. So, too, a septic pyo-salpinx, non-gonorrheal, whether derived from the virus of erysipelas, pyemia, diphtheria or scarlet fever, may be carelessly transferred from the gynecologist's hand or sound, and give rise to a pelvic peritonitis with more or less systemic infection, such as has never been observed as the result of a gonorrheal infection which is believed to limit itself to the mucous membrane. Among the German authors Fritsch has done signal service to emphasize these dangers, and forcibly says: "Always before introducing the uterine sound, dip it into a five per cent. solution of carbolic acid, even though properly cleansed directly after its previous use."

Although these words belong to the New Testament of medical belief, and were uttered several years ago, the mo-

mentous truth inculcated is as slow of recognition and general acceptance as were the oracles of the inspired Semmelweis.

Selections.

Practical Notes on the Treatment of Skin Diseases.

BY GEORGE H. ROHE, M. D.,

Professor of Hygiene and Clinical Dermatology in the College of Physicians
and Surgeons.

EPIDERMAL HYPERTROPHY OF OLD AGE.—*Keratosis Senilis*.

IN many elderly white persons, of both sexes, small patches of thickened epithelium are found variously scattered upon the face, trunk and extremities. These plaques are usually in the shape of roundish or irregular, slightly elevated, brownish or blackish collections. Sometimes they are dry and hard or cornified, but oftener the patch is greasy to the touch, friable and easily scraped off with the finger nail, leaving a moist and reddened, or slightly bleeding base.

When these epithelial patches are scraped or rubbed off, they rapidly re-form, causing the individual so affected much annoyance, and often uneasiness by their persistence.

Physicians generally regard this as a trifling ailment, and pay no attention to it, but careful observation will show that not rarely the constant epithelial hyperplasia results in an atypical formation, which eventuates in malignant ulceration—true epithelioma.

I have several times observed the gradual transformation of these simple epithelial hyperplasias into malignant new formations.

While this condition of the skin is described by most recent dermatologists, only Hyde and Anderson mention its occasional termination in malignancy. Dr. Hardaway, of St. Louis, has also observed the malignant transformation of keratosis senilis, but I am not aware whether his observations have been placed on record in print.

I am impelled, by the results of my experience, to call attention to the possible consequences of a neglect of this morbid condition, and to urge more careful attention to

what is generally regarded as a trival affection. Prompt and appropriate treatment is not only desirable for its cosmetic effect; it may often save the patient much suffering, and prolong his existence.

The treatment is generally simple. When there is as yet no infiltration, the patches should be softened with some indifferent ointment—cold cream or vaseline, and then washed with soap and water to remove all the epithelial accumulation. Soft soap or *spiritus saponis kalini* may be needed for this purpose. Afterward an ointment containing sulphur and salicylic acid may be applied nightly with success in most cases. The following makes a good application:

Ry.	Acidi salicylici,	.	.	gr. x-xxx.
	Sulphuris præcip,	.	.	5 ss.
	Pulv. amyli,	.	.	5 ss.
	Ungt aquæ rosæ,	.	.	5 i.
M.	Ft. ungt.			

Dr. Hardaway informs me that he has had good results from the use of Beiersdorf's salicylated plaster-mull.

If, after six or eight weeks' persistent use of this, the epithelial accumulation returns, the patch should be lightly cauterized with caustic potash solution, (1:2) or the thermocautery, following this with oxide of zinc ointment for a few days, when the use of the salicylated sulphur ointment is begun again.

If there is any infiltration, no temporising is permissible. The patch must be thoroughly cauterized with the thermocautery, caustic potash, arsenious, nitric or lactic acids. In some cases I have obtained good results from electrolysis.

EPIDERMAL ACCUMULATIONS AT THE MOUTHS OF THE HAIR-FOLLICLES. — *Keratosis Pilaris*.

Individuals with dry, harsh skins, who are at the same time too sparing in the use of baths, not rarely have a papular affection, especially localized about the anterior and outer surfaces of the thighs, the knees, etc. This sometimes causes considerable itching, and red inflammatory papules or pustules not rarely appear here and there. On close observation it will be noticed that the papules consist of little epidermal accumulations around the mouths of the hair-follicles. The papules are frequently perforated by the hair. At other times the egress of the hair is prevented, and it may be seen curled up under the hard epidermal cap.

The free use of hot water and soap will usually suffice in removing the accumulated epidermis, and relieving the subjective symptoms. In other cases, frictions with vaseline, sweet almond oil, cold cream, or a mild salicylic acid ointment may be necessary for a cure.

EPITHELIAL MOLLUSCUM.

Epithelial molluscum, also called contagious molluscum, from its supposed contagious nature, is a rather uncommon disease in this country. It consists of small globular tubercles from a pinhead to a pea in size, and generally of a glistening whitish or pinkish color. The summit of each tubercle is somewhat depressed, and a central point marking the opening of a sebaceous follicle can usually be made out. The most frequent seat of the disease is the face, especially the vicinity of the eyelids. It is also sometimes seen upon the genital organs. When irritated the growths may inflame and ulcerate.

The tubercles are firm to the touch. Pressure applied to the sides can usually force the contents, consisting of a whitish semi-fluid mass, through the aperture mentioned.

English authorities generally regard the disease as contagious; the evidence in favor of this is, however, insufficient. Inoculation experiments have always failed to transmit the disease. It is more frequent in children than in adults. The disease is a hyperplasia and alteration of the epithelial layer of the skin. Besides epithelial cells, the mass which is contained in the little growths contains roundish or oval bodies called "molluscum bodies." They are not peculiar to this disease, but are also found in other diseases of the epithelial stratum of the skin. These bodies are believed to be the result of a hyaline transformation of rete cells.

The treatment is entirely local. Expression of the contents of the tubercles is sometimes successful. Incision and cauterization with nitrate of silver may also be practiced with success. Kaposi recommends erosion with the curette. The electrolytic method will, however, succeed best in permanently removing the growths without leaving noticeable scars.

CALLOSITIES.

Callosities occur upon the palms of the hands and the soles of the feet, and, in fact, any part of the skin exposed to intermittent pressure. They are thickened, cornified

patches generally of a greyish or yellowish color, and slightly elevated above the skin. Shoemakers, tailors and other mechanics in whose occupations a limited part of the surface is exposed to repeated pressure, are liable to callosities. The patch consists of an increase of epidermis, closely packed and cornified.

The treatment consists in maceration of the thickened epidermis, and, if necessary, removal with the knife or solution of caustic potash. The part should be protected to prevent re-formation of the thickened epidermis.

CORNS.

Corns occupy a position pathologically between the callosity and the wart. A corn is a circumscribed hyperplasia of epithelial tissue, which projects downward by a conical prolongation into the deeper epidermal layers of the skin. The epithelium is hard and cornified, and pressure upon the broad upturned base causes exquisite pain, on account of the impingement of the apex of the cone upon the cutaneous nerves. Sometimes the connective tissue layer of the skin becomes atrophied from pressure, and at others inflammation and suppuration may occur beneath the corn.

These formations are usually found over the dorsal surfaces of the toes, but not rarely upon the soles of the foot or between the toes. The latter are called "soft corns," and are, if anything, more painful than those on the dorsum or plantar surface. They are generally caused by ill-fitting, though not necessarily "tight," shoes. An increase of humidity in the atmosphere usually intensifies the pain of corns. Hence the common observation that increase of pain in the corns betokens a coming storm. This may be explained partly by the fact, that increasing humidity renders the nerves more sensitive. Ultimately the increased sensitiveness is probably due to the lower pressure of the atmosphere when the humidity is high, permitting an increase of blood-pressure in the skin and thus compressing the nerve terminations.

The diagnosis of corns will never give rise to any difficulty if the parts are inspected. That errors may arise, however, is shown by an interesting case related by Hebra, which may be quoted here on account of its instructiveness. "The patient was a well-developed, stout soapmaker, whose occupation required his standing on his feet all day long. The

man was suddenly attacked with severe pains in his feet. Great resolution was required to walk at all, which was only possible by the use of shoes with felt soles. His occupation was, in consequence, much interfered with. Inasmuch as he also experienced severe darting pains in his feet at night, and was besides well nourished and fond of the pleasures of the table, his physician declared the disease to be gout, ordered appropriate internal medication and baths, but without good result. The patient was then sent to Carlsbad to use the waters. No relief was obtained until hot baths were tried, when his condition was somewhat ameliorated. He still had pain on walking, but was easy when the feet were in a horizontal position. His return from Carlsbad was followed by an intensification of his trouble. He was again put upon anti-arthritic treatment, consisting of colchicum, acetate of ammonium, etc., and again sent to Carlsbad. No good result following after this second year at Carlsbad, I was consulted in the case. In accordance with my general rule, always to examine the affected part, which had been omitted by the patient's medical attendant, I examined the diseased feet and discovered in them the cause of the pains. On the sole of the foot were a large number of corns, from the size of a millet seed to that of a lentil, and closely packed together. They were partly convex and partly concave from mutual pressure, which had given rise to the intense pain. The diagnosis of course was made, and afterward confirmed by examination of some of the specimens. The immediate effect of softening remedies, and emollient plasters, soon relieved the patient and permitted him to return to his occupation."

The preventive treatment of corns consists in the wearing of properly fitting foot-gear.

The discomforts of corns can be to a great extent relieved by protecting them against pressure. For this purpose the perforated corn plasters sold in the drug-stores may be used with success.

Soaking the feet in hot water and afterward picking out the little cone of epithelium constituting the corn, will give relief for a time, but so long as the cause continues, the corn will return.

The "soft corns," which are found between the toes, generally give most trouble. In these cases a little wad of absorbent cotton placed between the toes will usually relieve the pain.

Salicylic acid collodion painted on the corn every night for three or four nights in succession will generally cause the mass to come out of its bed and make a permanent cure. The preparation, or one similar to it, is sold in the drug-stores under the names of "Gezou's corn cure," "Russian corn solvent," "Green corn paint," and, perhaps, other designations. It is an efficient and painless remedy. The formula is as follows:

R. Acidi salicylici, 5ss.
 Ext. cannabis indicæ, gr. v.
 Collodii, 5ii.

M.

S.—Put a small camel's-hair pencil in the cork.

The evaporation of the ether leaves an impervious, and immovable covering of collodion over the corn, under which the salicylic acid produces its disintegrating effect upon the epidermal accumulation. The extract of Indian hemp is only added for the sake of its fine green color.

A considerable experience with this preparation has given me a high opinion of its usefulness. Care must be taken not to paint it upon the sound skin, otherwise it is liable to cause irritation.

Bergeon's Method of Treating Phthisis by Gaseous Enemata.

BY FRANCIS J. CRANE, M. D., CHICAGO, ILL.

IN January last the *N. Y. Medical Record* contained an article headed "A New Treatment of Phthisis," which gives a brief outline of Dr. Bergeon's method of administering carbon dioxide mixed with sulphuretted hydrogen gas, and referred to an article published in the *British Medical Journal* of December 18 1886. This described in full the apparatus and mode of using it, and stated they had been procuring beneficial results by the method, and that Prof. Cornil, of Paris, had also become an enthusiastic supporter of it. This led me to write to Mr. Bergeon, and in the course of my correspondence, he presented me with an apparatus, as well as with the treatise of Dr. Morel, read before the French Academy last June, and also one by Professor Cornil. These are so exhaustive that I have embodied in this paper only the essence of both, as follows:

New treatment of the disease of Respiratory Organs and Septicæmia by the means of Gaseous Enemata according to M. Bergeon's Method. By Dr. V. Morel. It would seem from the statements of physicians who have tried either to prevent the development, or the proliferation of the bacillus, or to destroy it, that it is the one thing which we have to overcome in the treatment of phthisis. In reasoning by analogy with other contagious diseases; as, for instance, cholera and hydrophobia, it might be urged that the bacillus is not the immediate cause of the morbid phenomena of tuberculous affections. It is known that, aside from miliary tubercles, which invade the lungs and are the cause of the patient's symptoms, the gravest phenomena of phthisis are due to the septicæmia, which poisons the patient, and is caused by the suppuration of the tubercles, which, brought in contact with air, undergoes putrefaction and is absorbed into the system. The bacillus works, then, by producing lesions of texture, which become fatal to the organism by rapidly destroying or, by undergoing softening and absorption, produce septicæmia. To use Darembourg's expression: "The bacillus is nothing, but septicæmia is everything."

In acknowledging that it is not necessary to ascribe to the microbe all of the morbid phenomena of phthisis, it is not less true that its presence is to the organism an incessant and real danger, and that consequently, in endeavoring to discover a remedy for the lesion which it has produced, it is necessary to destroy it, or at least neutralize its action. For this purpose such agents as sulphuret of hydrogen, bisulphide of carbon and other antiseptics mixed with pure carbonic acid, are employed.

Principles of Bergeon's Method.—The first mode of treatment thought of consisted in applying by inhalation some substances having parasitocidal properties. It is known that the antiseptic substances are poisonous, when introduced into the arterial system, either directly or by inhalation. Claude Bernard has shown that poisonous gases introduced into the arterial system through the lungs produce toxic effects almost instantaneously. Besides, the antiseptic substances have an irritating action, and this action operating on diseased lungs, will only increase the existing lesions, while their unpleasant odor aroused a refusal in the patients to their use; this is probably the reason why so little success has been obtained by inhalation in the treatment of phthisis, and is conclusive proof that the introduction of antiseptics by

the stomach is preferable, for Cl. Bernard has shown that when a poisonous or medicinal substance is introduced into an organ distant from the arterial system—into the digestive tract, for instance—it can not enter the arterial system, because it is expelled before reaching it. It must pass through the portal system, the hepatic veins and the pulmonary texture, there to be exhaled, or it can be expelled in the liver with the bile.

It is well established by experiments that the introduction of poisonous substances into the digestive tube may be done without danger by taking certain precautions, of which the most important consists in not injecting too large quantities at once, and not injecting more before the first has been completely eliminated. What avenue ought to be chosen? The stomach or the rectum? In both cases the medication will have to pass through the portal vein, the liver, the hepatic vein, the right heart and the pulmonary arteries, but we think the rectal way is preferable, for the patient can not take a dislike to the antiseptic substances on account of their disagreeable odors.

Gaseous Enemata in the Therapeutics of Respiratory Organs, Pulmonary Phthisis, Asthma, Whooping-cough, Bronchitis, Bronchiectasis, Bronchorrhœa, Pulmonary Catarrh. By M. Cornil. The principle of the action of gaseous infections and of their rapid elimination by the lung, has been given by Cl. Bernard. He showed that when sulphuretted hydrogen is injected into the rectum of an animal, the gas is expelled by the lungs; he proved that we can so inject it in almost unlimited quantities, without causing harm; whereas its introduction by inhalation rapidly occasions grave accidents and the animal's death. However, to introduce sulphureous hydrogen, or any other gas or vapor, into the economy per rectum, for the purpose of destroying the micro-organisms which exist in a number of diseases, it was necessary to find a gaseous vehicle, inoffensive to the economy, and easily tolerated by the bowel.

Carbonic acid gas admirably answers the purpose; it is very easily borne by the colon, rapidly absorbed and afterward expelled by the lung, with the medicinal gas which it holds. This gas itself, in all probability, plays a very important part in this new treatment of pulmonary diseases.

Dr. Bergeon, who inaugurated this method, published a few months ago the first results obtained in the treatment of pulmonary phthisis by this method. Physicians of Lyons,

Paris, Geneva and Marseilles, who have treated phthisis by the method, have generally obtained a very rapid disappearance of the phenomena of pulmonary suppuration, and a progress toward a state of health with all the signs of cure.

Concerning the patients I have treated by this method, I can now assert the results I predicted three months ago have been achieved. The patients I considered cured have no more expectoration, and give on auscultation stethoscopic signs which denote the presence of quiescent cavities, or cicatrized lesions. Some of these patients have been obliged to return to a life of labor; nevertheless their respiratory organs have stood the test, and the amelioration obtained has been permanent.

While many patients whom the expectoration once so exhausted, now have only three or four grams of sputum a day, at the beginning of the treatment it was from 250 to 300 grams. We have found bacilli, it is true, in the sputa of these patients; yet it remains to be discovered whether these bacilli which continue to exist after the return to health have kept their functional activity or not. Whatever may be the mode of action of carbonic acid introduced by intestinal absorption in the venous blood and afterward expelled by the lung, it can be said from the observation of patients, that this gas, filled with proper medicinal substances, greatly modifies the respiratory function, and makes the hemathosis more complete and easy. It gives a sensation of well being, followed by an increase of strength and weight, a diminution of fever and night-sweats.

The following precautions must be observed in giving this treatment:

1. The CO_2 ought to be as pure as possible, so as not to inflame the bowel. That obtained by the reaction of dilute sulphuric acid on the bicarbonate of soda has always been perfectly absorbed by the bowel without producing any toxic effect.

2. The gas should be collected in a receiver from which the air has been expelled.

3. Make the injections just before a meal, or at least three hours after, and never when the patient is weary. It is necessary to be very cautious in experimenting with other medicinal substances, for if, although the sulphuretted hydrogen is inoffensive, other agents, as turpentine, chloral, ammoniæ, iodine, bromæ, ether, etc., may not be, and might

be the cause of an inflammation of the intestinal mucous membrane.

It is not necessary that the dose be large; by injecting twice a day four or five litres of carbonic acid gas, passed through five hundred grams of sulphur water, we rapidly notice the disappearance of all the phenomena of pulmonary suppuration, either in its acute or chronic state.

Bergeon's method has been successfully experimented with by Dr. Chantamesse, in his service at St. Antoine Hospital, during the months of August, September and October. The following are his results: "Two patients brought to the hospital suffering with violent attacks of asthma were, half an hour after the injection with sulfo-carbon vapors, entirely relieved of the dyspnoea. The treatment having been continued for a few days, the breathing was relieved, and the attacks were not repeated during the time they remained." Nine patients giving general and local signs of pulmonary tuberculosis, with tubercular bacilli in the sputa, have obtained very great amelioration from this treatment. The increase of weight has been rapid, one pound and sometimes as much as thirty-five oz. a week; cough and expectoration have largely ceased. We always find the bacilli in the sputum, however. These patients have been under treatment for one month and a half. One of them has increased nine pounds in weight.

I have used this treatment with four cases; two of phthisis, one of intussusception of the bowel and one of spasmodic croup. With the croup and intussusception it operated like a charm, overcoming both almost instantly. In the case of croup I used the bisulphide of carbon, and in half an hour the little patient was sleeping, apparently as well as ever.

Case I.—Mr. W., aged 26. Two sisters and a brother died of phthisis; he had been treating with various physicians and changing climate (having been to Colorado twice) for over three years. The right lung was nearly useless, as it contained a cavity corresponding to nearly if not quite half of its original capacity. Nowhere on this side could vesicular respiration be heard, while the left apex likewise yielded unmistakable signs of disease. There were œdema of the feet, incessant cough, broken sleep, watery stools and ravenous appetite, although he could not retain anything on his stomach; temperature 102 deg. F. After the first injection of bisulphide of carbon, given in the evening, he slept well for three hours and was bothered very little with cough,

but on rising in the morning, to use his own words, came nearly strangling for want of a cough, which he finally got, and expectorated a pint with the one paroxysm. I then used the sulphuretted hydrogen water and he improved very fast; in one week he had a normal temperature; night-sweats almost entirely stopped, expectoration was much less, and he was able to wear his shoes, which he had not been able to do for over six weeks. Unfortunately, however, at the latter part of the second week he ventured out in one of our rainiest March days, took cold, and his death, two days later, cut short the record of what might have proven almost a miracle.

Case III.—Mrs. W., aged 34, widow, having lost her mother and older sister from phthisis, applied to me for some heart trouble. Complained of a dizzy sensation on rising from a recumbent position; feet swollen some, hectic flush, considerable dyspnœa, slight cough with no expectoration. *Diagnosis*: Incipient phthisis with heart complication. She had noticed, also, for about a week some night-sweats, which did not last, however, after the second administration of gas. She improved so rapidly that she only made seven visits in all, and pronounced herself cured. There is, however, no doubt but she will have a return of symptoms upon the slightest provocation.

This comprises all my experience, but these are facts, and facts are stubborn things to deal with. In regard to the best mineral water, I wish to say that, after trying the Lafayette, Ind., the Blue Lick, Ky., and the Ypsilanti, Mich., mineral waters, I am satisfied that the Ypsilanti mineral water is just what we want. It contains twenty cubic inches of gas to the gallon, and is so strongly impregnated with it that I used it over the second time by having solid rubber corks to replace the perforated ones when I have got through using the apparatus. Mr. St. Clair, President of the Company at 88 Randolph Street, has kindly furnished a case of twelve quarts of water, which I have forwarded to Dr. Bergeon, in hopes that it will compare favorably with the Eaux Bonnes water which he is using. I have also had an apparatus made by E. H. Sargent, which I think takes the place of Dr. Morel's very well, differing from it only in point of cheapness, costing but little more than one-half the former.

The true place of this mode of treatment can not be established until the experience of careful observers has been.

given us, years hence. I wish, therefore, to urge the profession to investigate the matter fairly, since time, I am confident, will prove that Dr. Bergeon has been one of the greatest benefactors of the age.—*Peoria Medical Monthly*.

Clinical Lecture.

BY JOHN A. ROBISON, A.M., M.D., CHICAGO,

Professor of Materia Medica and Therapeutics in the Woman's Medical College, etc.

GENTLEMEN—I have the good fortune to be able to illustrate to-day the old adage, "It never rains but pours," inasmuch as I am about to present before you four cases of pleurisy. They do not all present the same physical signs, nor are their histories alike; hence you will undoubtedly be interested in studying this group of cases, in order to differentiate them diagnostically. The first patient is a woman, Irish, aged thirty-six, mother of two children; history of phthisis in her family. Four months ago she commenced to cough, and suffered from severe stitching pains in the left side of her chest. These pains have continued to the present time. She has lost twelve pounds of flesh, and her appetite is very poor. Cough worse in the morning; no expectoration or night-sweats; temperature now is 100° F. On physical exploration the signs are, by inspection, interrupted respiration, with slightly lessened movement of the left side; by auscultation, a pleuritic friction sound over the lower lobe of the left lung. The patient assures me the character of the pains over this region has remained the same. This is a case of dry pleurisy, or pleurisy without serous effusion. I do not believe there has ever been any effusion present. Now, what is the cause of this chronic dry pleurisy? I think we can easily answer, for on auscultation I find well-defined broncho-vesicular respiration over the apex of the right lung. Our diagnosis, completed, is phthisis in the first stage, with tubercular pleurisy of the left lung. The treatment I advise is the treatment of the constitutional diathesis, counter-irritation over the lower lobe of the left lung, and the administration of anodynes for the relief of the pleuritic pains.

The next case you observe is a man, German, aged forty-three, brass-finisher; family history good. Illness commenced

with lancinating pains over left side of chest, with shortness of breath, nine weeks ago. Has been able to lie only on his back. Pains have not been so severe as at first for seven weeks, although during the past few days they are returning. By physical exploration we have the following signs: By inspection, loss of motion of affected side (left), with slight effacement of intercostal depressions and displacement of the heart to the right; by palpation, loss of local fremitus below the fourth rib; by percussion, increasing dullness from the second to the fourth ribs, and below this flatness; by auscultation, exaggerated respiratory murmur over the right lung, with sibilant râles, broncho-vesicular respiration at the left apex, with gradual diminution of respiratory murmur and voice sounds to fourth rib; an entire absence of these below this point. My diagnosis is effusion in the left pleural cavity. The character of this effusion we should judge to be serous, and such you see to be the case, as I have serum in this hypodermic syringe which I have introduced. The treatment is that ordinarily employed where the amount of effusion is not great: tonics, diuretics, and counter-irritants.

The third patient is a man, Irish, aged forty-seven, who has been under treatment for some time for enlargement of the liver. I have drawn an outline of the lower border of the liver upon the skin. You will notice it extends downward almost to the umbilicus and to the left, displacing the heart and stomach upward, and pushing the intestines downward and to the left. Percussing from the lower border of this liver upward on the right axillary line, you are surprised to find complete flatness to the axilla. You will also notice loss of motion on the right side, effacement of the intercostal spaces, and enlargement of this side, while the apex beat of the heart is near the left nipple. On auscultation, I find no respiratory murmur or voice sounds over the right lung. You will perceive the extreme dyspnoea from which this patient is suffering. Besides the enormous enlargement of the liver, there is a large effusion in the right pleural cavity, and these cause so much pressure upon the heart and left lung as to jeopardize this patient's life. This is a case demanding immediate aspiration, and I will proceed to perform the operation that you may see the *modus operandi*. [Introduced aspirator needle in sixth intercostal space, one inch behind the right axillary line.] Gentlemen, you are doubtless surprised to see the red color of this fluid. The fluid is serum containing blood. It is, I believe, pathognomonic

of pleuritic effusions due to cancer of the pleura, and this fluid tells us a fact we have not heretofore learned by our examination of the patient; that is, the patient undoubtedly has cancer of the liver and pleura, and, of course, this fact compels us to give an unfavorable prognosis.

We have removed by aspiration *nine pints* of bloody serum, and while we have greatly relieved our patient, I am sorry to believe it will prove only a temporary relief.

The last patient I present to you is a man whom I aspirated three weeks ago to-day for effusion in the right pleural cavity. To-day, on examination, I find no evidence of fluid in this cavity, and the lung has expanded quite well, but he still complains of shortness of breath and pain in the epigastric region. And you notice the enlargement of the abdomen; on percussion, there is flatness to a point one-half an inch above the umbilicus, and fluctuation is marked. A new complication has arisen—there is ascites. In the absence of all indications of disease of the liver or other organs, we must conclude this is a case of *cachectic ascites*—as you will observe the cachectic appearance of the patient, and remember he has been sick for a long time. The treatment we will place him on will be a tonic containing iron, quinine and strychnine, generous diet, and an elaterium pill (gr. $\frac{1}{8}$) once daily.

This interesting group of cases teach us: 1. That pleurisy may last for weeks without any effusion. 2. That physical signs alone will not enable us to complete our diagnosis. 3. That, after aspiration, at times peculiar complications may arise. 4. We have had an illustration of two classes of cases—one in which aspiration is not needed, the other where it is urgently demanded.—*Med. Register*.

Fistula in Ano—Tumors.

I HAD a case of fistula in ano, about four years ago, with symptoms of ringing in the ears, headache, lumbago, nervousness, with almost constant prostration; also, a very copious discharge per urethra and bladder, of a thick white pus of a very fetid odor. While the patient was in this condition, he made application to various physicians in Chattanooga (he lived in the country near by). I, as well as the rest, diagnosed incorrectly.

Two years later a small white pustule made its appearance on the right of the sphincter, just at its margin. He sum-

moned me at once to "lance a rising," as he called it. I obeyed the call, and on making an examination diagnosed fistula in ano. He told me this had been coming on for five or six years. I told him I would have to use the knife. He decided to think it over, and in the meantime the pustule began to suppurate and the urethral discharge grow less.

After a lapse of nine months he came to the conclusion that he would die if he allowed it to run on this way, and he agreed to submit to an operation. I made an examination and found an abscess four inches in diameter, with five or six white pustules over the abscess. The pus issued from an opening to the right of the testicle.

I had Dr. D. summoned at once to assist in the operation. On consultation we agreed as to diagnosis, and as to the operation, except that he objected to laying the abscess entirely open. My assistant etherized the patient and I inserted my groove director into the sinus at its exit, with the probe-pointed bistoury in the groove. Finding that it did not suit, I used the curve-pointed bistoury, opened the sinus to the abscess, then took the probe and searched for the sinus that led from the abscess into and up the rectum. I then inserted the index finger of my left hand into the rectum and inserted the groove director into the sinus (laying open one side of the abscess) until it came to the rectum, two inches from the anus. The instrument being held by another assistant, I inserted the probe-pointed bistoury. I then had the assistant withdraw the director. Now, with my finger in the rectum and bistoury in sinus with the probe, I pressed well up and held firmly, and with a heroic pull I brought both the sinus and rectum into one canal.

The treatment was in the ordinary way. The sinus irritated, the membrane suppurated and sloughed away nicely, but the abscess persisted in holding its fort, and did so until the end of three months, when it had to be laid open.

I will now say to the readers of the *Brief* that when you are called to treat a fistula, open every sinus abscess, and then keep them open.

I put him on the marjorams with some sanitary directions, and he made a good recovery.

After moving from near Chattanooga to Arkansas, I was employed to cut three tumors from the head of Mrs. C. The first on which I operated was about the size of a partridge egg, the second about half that size and the third

about one-fourth as large as the first. On examining the tumors I found the wall to be very thin and filled with a very thick yellow doughy mass.

About six weeks ago I cut a tumor from the side of Mrs. P., which I found to be a fibroid, and in three weeks after the operation it returned.

Now, I would like to know if there is anything better to cure it hypodermically than carbolic acid? Will state that the lady was fleshy, which gave me inconvenience.

J. B. SHAW, M.D., in *Medical Brief*.

Cannabis Indica in Diarrhœa.

BY FREDERICK F. BOND, M. D., AND B. E. EDWARDS, M. B.

DR. S. J. RENNIE, of Cawnpore, in the *Indian Medical Gazette* for December, 1886, calls attention to the value of cannabis indica in the treatment of dysentery. We wish to draw attention to its value in a similar condition, namely, diarrhœa—especially in the type known as summer diarrhœa or English cholera. Attention was drawn to it in this connection by Dr. Turner, of the Holloway Dispensary, in the *Lancet* (vol. ii, 1866, p. 536). He says: "In ordinary diarrhœa (presumably referring to summer diarrhœa) the formula

R̄.	Tincturæ cannabis indicæ,	.	.	mims.x.
	Spiritus chloroformi,	.	.	mims.x.
	Tincturæ kino,	.	.	ʒj.
	Aquæ menthæ piperitæ,	.	.	ad ʒj.

in a modified dose will be found very serviceable. Being connected with a dispensary where thirty to forty cases of diarrhœa presented themselves daily for treatment during the months of August and September, and where a great variety of remedies were tried, so great was the superiority of Indian hemp above the others, that the patients themselves got to know it, and invariably asked for the green medicine."

We have been in the habit of prescribing it in nearly all forms of diarrhœa with marked benefit, combined with medium doses of morphine. In summer diarrhœa the effects are very striking. There is no necessity to record cases, they are all very much alike; the great depression, the frequent watery stools, the vomiting and the cramp-

like pains are very quickly relieved; the appetite speedily returns, and by the following or third day the cases are practically well, except for some weakness and debility. The formula we generally use for an ordinary adult is—

R _y .	Tincturæ cannabis indicæ,	. mims.x.
	Liquoris morphinæ,	. mims.v vel mims.x.
	Spiritus ammoniæ aromatici,	. mims.xx.
	Spiritus chloroformi,	. mims.xx.
	Aquæ,	. ad ʒj.

To be repeated every one, two, or three hours according to circumstances. Directions: *No food for several hours, but a little brandy and water.* We have not seen one case run on to a fatal issue under this treatment.

It appears to act by increasing the astringent and anodyne properties of the morphine (the dose of morphine would have very little effect alone), by its stimulant effect on the nervous system, improving the tone, and by improving the appetite; thus enabling the system to quickly overcome the marked depression and exhaustion. Most remedies in this disease rather retard the return of the digestive functions, but from our experience Indian hemp markedly accelerates it. Indian hemp seems also to frequently counteract the bilious action of morphine, as well as the loss of appetite, and allows it to be given where it otherwise would not be tolerated.

In other forms of gastro-intestinal disturbance it is also valuable, probably for the same reasons. It was of marked use in a case of sub-acute gastro-enteritis, which had existed for a few weeks before it came under our care, in a girl aged thirteen years, showing the following symptoms: marked anæmia, which had gradually come on after the other symptoms; constant pain over the abdomen, especially in the epigastric region, increased on pressure and after food; tongue covered with yellowish-white fur; loss of appetite; vomiting at variable times after food of partly digested material; diarrhœa, six or eight stools in the day, which were watery and green, containing partly digested food material; some rise in temperature—a little over 100° F. She was first treated with bismuth, then with effervescing mixtures, with no benefit; then with the cannabis mixture (modified to suit her age), and the symptoms very quickly subsided, the vomiting and diarrhœa were checked, the pain ceased, and the appetite returned. By the end of the week all the symptoms had

disappeared except the anæmia, which persisted for a short time.

In cases of tuberculous diarrhœa we have not seen much benefit, beyond a slight relief of symptoms for a short time, though we have not had sufficient experience in this type; nor in the excessive diarrhœa in typhoid fever.

The use of cannabis indica in diarrhœa is certainly not new, as the quotations previously given will show; and an old dispensing chemist informed us that some twenty years ago he knew it to be frequently prescribed; but probably from the introduction of many new remedies, and from good specimens of the drug having been not always obtainable, it has, with many other valuable remedies, been temporarily forgotten. We can find no mention of it in modern works on medicine. — *Practitioner*.

A New Method of Suturing the Bowel.

BY H. H. MUDD, M. D., ST. LOUIS, MO.

EXPERIMENTAL research and clinical observation demonstrate the rapidity and uniformity with which intestinal wounds are repaired when properly united. The manner of closing an intestinal wound is not markedly different from that used in uniting the severed ends of an excised bowel segment. Let us consider then the excision of a segment for gangrene, the result of strangulation. The circulation is already impaired, and the parts easily become congested, hence the prime importance of having perfect freedom from constriction and accessibility for easy handling and unrestricted work. The technique of the work is important, for through the perfection of its details is insured uniformity and perfection of approximation with least possible damage to the parts involved. Rapidity and precision of action are necessary.

The V-shaped incision made to remove part of the mesentery seems to me an irrational and unnecessary procedure, since if sutured along the cut edge it requires too much time. A silk ligature carried through the mesentery about one centimeter from the intestine and so placed as to include one-half centimeter mesentery at each end, then attached to the bowel segment to be removed, is sufficient to control hæmorrhage and to approximate the tissue of the mesentery

so as to leave a small stump. If more than four inches of the bowel are to be removed, the mesentery can be ligated in sections. The ligature then placed near the bowel includes only the smaller vessels, and does not disturb nutrition. After the ligature is tightened the mesentery is severed from intestine by scissors, and a portion of intestine beyond the line at which excision is to be made is free. Mesentery ligation will help to hold the divided ends in place.

The difficulty in controlling perfectly the cut edge of the peritoneum with the mucous membrane everted and overlapping, has induced me to adopt the following method in the last three cases operated on: The portion of the intestine to be excised, is emptied of its contents by pressure and the bowel clamped with two pair of Pean forceps, applied just at the line of the intended excision. The point of the forceps is at the mesenteric border, and the heel at the free margin. A sewing needle (No. 5 or 7) armed with fine silk is now used to place a row of six or eight Lembert sutures at each end of the intestine outside the forceps. The sutures are left untied and long, and all put into position before dividing the intestine. The portion of the bowel, outside the line of sutures, is then emptied by pressure of the fingers of an assistant and held in position. The middle portion of the untied sutures is now lifted from contact with the gut and the bowel excised close to that margin of the forceps which is next the sutures. The free ends with the sutures are then quickly approximated by trying the Lembert suture. The union is made more secure by placing a continued cat-gut suture over the line of Lembert sutures. An ordinary sewing-needle is used for this suture.

This method of dealing with the mesentery is entirely practicable, except where there is large fatty deposit and much thickening exists. It prevents hæmorrhage, leaves a small, compact stump; does not require sutures and helps to hold in apposition the united ends of the intestine. The Pean forceps make a good clamp, and the tissue included in their grasp is easily removed. The line of suture is easily placed and a uniform margin is inverted. The Lembert sutures are not to be carried through the mucous membrane. The intestine is not opened until after the sutures are placed and the divided ends are then ready to be drawn together. Final extravasation and sepsis are thus avoided.

The manipulation of the intestine is reduced to a minimum, and the operation made easy and rapid. The time

saved in such an operation adds its safety, and is of first importance, provided accuracy and perfection are not sacrificed. The line of Lembert sutures can be placed as close as possible to the forceps, and yet leave room for dividing the intestinal wall between the forceps and the sutures.—*Medical Standard.*

Chicago Medical Society.

Stated Meeting, Tuesday, July 5, 1887.

THE President, W. T. Belfield, M.D., in the chair. Dr. E. B. Weston reported

“CASES OF SYNOVITIS OF THE KNEE-JOINT.”

Synovitis, though a surgical disease, is one which the general practitioner often treats—is often compelled to if he have a country practice—and there is no reason why he should not treat it well and successfully.

A slight synovitis may recover rapidly without treatment, and so these cases get well when treated with a poultice, or painted with tincture of iodine. But the physician who makes this his routine practice will not have many “flattering successes,” and the number of cripples in his neighborhood may be monuments to his want of thoughtful attention.

I have four cases of synovitis of the knee to report. Not that they present points of peculiar interest, but to emphasize their importance, even though I disclose my own mistakes in doing so.

Case I.—A. B., Irish, aged about 50, laborer. I met him on the street, January 1, 1885, when he told me he had pain in his left knee; that he did not know of injuring it in any way. Having a physician's dislike for using “all outdoors” for his office, and being consulted wherever he chances to meet a would-be patient, I gave him little attention and advice of a general nature. One week later he sent for me. I found him in bed suffering severe pain, knee distended with fluid in joint cavity, leg flexed. He refused to have fluid evacuated, or even to have leg put in splint, although I plainly told him of the probable consequences of not doing so. Then, instead of leaving the case, I allowed him to be his own physician, while I continued to make daily visits and suggestions.

I have no full notes of the case, but it went from bad to

worse. Abscesses formed in the thigh, which were opened as they developed; drainage tubes passed in various directions, the limb becoming honeycombed by the burrowing pus. These cavities were frequently syringed with carbolyzed water and the limb kept on a pillow of oakum. He was given a nourishing diet, stimulants and tonics. But he gradually lost flesh and strength, temperature increased, and on the 1st of March he died of sepsis and exhaustion.

Case II.—C. D., American, aged about 45, by profession a lawyer. First saw him March 4, 1886, when he told me his left knee had pained him quite constantly, but not very severely, for about ten days. He thought he had taken cold in it while sitting at his desk, under which he had felt a draught. I found knee moderately enlarged, joint distended with fluid and hot and painful. I ordered him to bed and had applied an anodyne liniment and warm fomentation.

This treatment was continued for three days without benefit, when I opened the synovial cavity with a bistoury and evacuated about eight ounces of light straw-colored, probably nearly normal, synovial fluid. He was at once relieved of pain, the limb put on a well-padded posterior splint, and an elastic bandage applied. The fluid gradually reaccumulated, and in four days the joint was again full, hot and painful. I now aspirated it and reapplied bandage. There was again a slight filling, but not sufficient to necessitate opening. The patient steadily improved, and in a few weeks had perfect use of the joint.

Case III.—E. F., a Swede, aged 25, painter. February 19, 1886, at noon, while on his way to work he fell, striking his right knee on the ice. It caused him severe pain for a short time, but he worked the whole afternoon, standing on a step-ladder, without much discomfort. At night the knee began to swell and pain him intensely. When I saw him the knee was hot, very painful and moderately distended, and leg flexed. A liniment composed of opium, aconite and menthol was applied, with warm fomentation, and opium given internally. No improvement taking place, and the joint becoming much distended, on the 22d inst. I opened it with a bistoury, letting out a large quantity of blood-colored fluid. He was at once relieved of his intense pain. He made a steady recovery, and in about two months had perfect use of the joint.

Case IV.—S. H., aged 38, a carpenter. He had been

at work on outside building most of the winter, and of late had been obliged to kneel on scaffolding a good deal. When I saw him on February 3d, he told me his left knee had been painful and getting stiff for some time. It was then painful and contained a small amount of fluid. I could not convince him of the importance of giving it rest. I saw him occasionally during the following weeks, during which he was working about and simply using a liniment. On the 11th inst., the condition of the knee being decidedly worse, I told him unless he was willing to give me absolute control of the case, I should do nothing more for him. He was unwilling to submit, and I did not see him again for four days, when he sent for me. The joint was now moderately distended, and the patella floating. I applied posterior splint and elastic bandage, and the patient went to bed. Three days later, the joint being very full, I opened it with a bistoury, letting out a quantity of apparently unchanged synovial fluid. Immediate relief followed, and the bandage was reapplied. The patient was given quinine, iodide of iron, and the kidneys and bowels kept active. But the improvement was not permanent. The joint slowly refilled, and in three weeks it became necessary to evacuate it. This time I used the aspirator, and an accident happened which I am quite sure will not occur to me again. Being ready to introduce the needle, I asked my friend, who was assisting—a most careful and intelligent physician—to exhaust the aspirator bottle. All being ready, I passed the needle into the tissues until the opening near the joint disappeared, when I requested my assistant to turn the stop-cock, and as he did so, I thrust the needle into the cavity of the joint. I was startled by a shriek of pain, and I have rarely seen such an agonized expression on any face. The muscles of the leg instantly became rigid and prominent, and the joint increased in size, but no fluid appeared. Fortunately the probable cause of the trouble at once occurred to me. The bottle had not been exhausted, but filled with compressed air. The needle was withdrawn, the aspirator made ready and the fluid evacuated as intended. The air which had been driven into the joint bubbled out with the liquid. But the cellular tissue of the thigh contained air which could be felt for two weeks; by which time it had disappeared, leaving no ill effects. Apparently the joint was not injured by its forcible distention, though in four days it had become filled again, and I withdrew with the aspirator fluid of the same appear-

ance as before. In just one week, the other knee having become similarly involved, and the joint cavity very full, I aspirated it. From this time he steadily improved and made a perfect recovery.

I have intentionally omitted to speak of the anatomy of the knee, or of the pathology, diagnosis and classification of the cases I have briefly reported, but it would seem proper to treat them by pressure, absolute rest, and early, and if necessary, repeated evacuations. Barwell, whose reputation in diseases of the joints is certainly second to no man's, says: "If the inflammation be sufficient to cause considerable secretion into the joint, producing marked fullness of the sac, the synovial membrane should be punctured . . . to relieve the tension."

Howard Marsh, in his work on "Diseases of the Joints," says:

"It is now well known that matter, whether connected with acute or chronic arthritis, may be safely evacuated, with the result that the severe suffering, the prolonged fever, the wide and destructive burrowing, and the formation of sinuses, which were the common rule only a few years ago, can be generally avoided."—*Atlanta Medical and Surgical Journal*.

The Management and Treatment of Acute Bronchitis in Children.

BY S. HENRY DESSAU, M. D., OF NEW YORK.

Before speaking of the treatment proper, I would like to call your attention to certain hygienic conditions under which the little patient should be placed, as well as the adoption of prophylactic measures, which in delicate children is of prime importance. Regarding prophylaxis in bronchitis, nothing can be better than establishing the habit of cold bathing for the infant. This may be carefully regulated by the use at first of sponging with cold water from the head down to the shoulders and spinal column while the child is in the tepid bath. Afterward douches and the whole bath should be given successively as age advances. The cold bathing strengthens the integuments and prepares the body for sudden cold or other atmospheric influences.

Most of our patients, children affected with subacute

bronchitis, are not usually considered sick enough to be kept in bed. The youngest ones have to be carried in the nurse's or mother's arms, even if very sick; while the older ones, if sick enough to be kept in bed, are often allowed to remain in their ordinary clothes. I often find among the poorer classes, and occasionally in families of the better class, the little children almost suffocated with the number of clothes they have on, irrespective of the temperature of the weather. I believe such heavy dressing only exposes the child to contract an additional catarrh upon the slightest change of the weather. If the attack is not severe enough to confine the child to the bed, I direct it to be kept in the room in its ordinary dress; but if sick enough to go to bed, the clothes are to be removed, and nothing but the night-dress worn. Infants while sick should be at all times loosely dressed, and when carried about should be wrapped in a light shawl or blanket. It is a commonly received idea that children affected with bronchitis, however slight, should be kept indoors. My experience in a dispensary practice of twelve years in children's diseases has shown me that, except in severe cases, this is not necessary for a prompt recovery, providing always that the child is kept warm by suitable covering while in the open air. In private practice, however, as there is no occasion for the child to go out of doors, it should be kept in the room.

The temperature of the room should be kept at from 65° F. to 70° F., and proper ventilation secured at night by keeping one or more windows drawn down from the top for about eight to ten inches. One great source of all catarrhs in this city, in my opinion, is the intense heat which is kept up in the dwellings during the entire winter. Even in the rooms of tenement-houses this is often found to be the case in an extreme degree. The sudden change experienced on going into the street, or even another room or hall-way, or coming from the street into the apartment, will inevitably produce the condition of "catching cold." This may be explained, according to Rosenthal, by the superficial blood-vessels of the body becoming paralyzed after one has remained for any length of time in an overheated apartment, while the body temperature rises at the same time. If the overheated body, with its enormously dilated superficial blood-vessels, is now suddenly exposed to cold, the body temperature descends below the normal, and the blood of the superficial parts, so suddenly cooled, courses through

the internal organs and cools them off more suddenly than would be the case from the simple influence of cold, without the previous influence of greater heat. This sudden cooling acts as an injurious influence in causing congestion in this or that organ, especially if it is already enfeebled, and hence less resistant. It will always be of advantage, if the attack is in any way severe, to have a certain amount of moisture in the shape of steam diffused through the air of the room. This can be easily done by keeping water boiling over an alcohol stove. The addition of a small quantity of turpentine will be found highly useful and refreshing.

The therapeutics of bronchitis may be regulated according to the order of the tubes involved and the rise of temperature which accompanies the disease. In mild cases, where the catarrhal process is limited to the larger tubes, and there is very little or no increase of temperature occurring in infants under six months of age, I have found such remedies as the wine of antimony in doses of one-fourth to one-half drop, in combination with the wine of ipecac in doses of one-half to one drop, repeated every hour, prove highly efficacious. Small doses of the golden sulphuret of antimony, one-twentieth of a grain triturated with sugar of milk, and repeated hourly, have also given satisfactory results. A stimulating embrocation, as equal parts of spirits of turpentine and olive oil, applied with a piece of flannel to the back and front of the chest until reddening of the skin is produced, will prove of additional service. In children over six months of age, similarly affected, the dose of the antimonial and ipecac wines should be increased to one drop each. I have also found the tincture of bryonia of the German Pharmacopœia, in doses of one-half to one drop every two hours, of benefit in some cases. In a few persistent cases of subacute bronchitis in older children, the inspissated juice of *Sabal ser-rulata*, or saw palmetto, has given gratifying results. The dose is from five to twenty drops three times daily. Where there are evidences of a strumous constitution, the emulsion of cod-liver oil, with or without the hypo-phosphites of lime and soda, will be found all-sufficient.

In severe cases of bronchitis accompanied with an elevation of temperature, and where the medium-sized and smaller tubes are involved, I am in the habit of giving tincture of aconite root in doses of one-half to one drop, according to age, repeated every hour, with the result of reducing the temperature and establishing resolution. If a spasmodic

element of the cough is manifest to any extent, much benefit may be derived from the tincture of belladonna in drop doses, given alternately every hour with the aconite. It will be remembered that in the early stage of inflammation of a mucous membrane the secretion is at first diminished, the membrane becoming dry and swollen. Afterward the secretion is increased in quantity, while at the same time it becomes altered in quality, being viscid and tenacious. Hence, in the early stage of an acute bronchitis, where dry, subcrepitant or sonore-sibilant râles are heard, the practice which is often followed, of giving stimulating expectorants, such as the carbonate and muriate of ammonia and squills, in free doses, can only result in aggravating the existing condition.

Much more successful results, in my opinion, will be obtained by giving such remedies as will relieve the congestion and swelling of the mucous membrane, through acting upon the force of pressure of the blood circulation, or by derivative action upon distant organs whose functions are in a measure compensatory in character. Such is the effect of aconite that I have mentioned, and veratrum viride that I have not used. Nitrous ether, which is a depressor of arterial tension, as the other nitrites are known to be, which thus explains its diuretic effect, is a time-honored remedy in bronchitis, and may be cited as representing the latter class. Spirits of Mindererus, from its sudorific action upon the skin, is always indicated. A favorite combination of mine, which has seldom failed to render me valuable service, is: Liq. ammon. acet., fʒiv; spts. ether. nit., syr. ipecac., āā fʒiss; syr. senegæ, fʒj; syr. limonis, fʒj. M. ʒj every three hours. This formula has been published in an incomplete form in Johnson's Formulary of Wood's Library, and I here take occasion to make correction of the error, due, no doubt, to the printer's oversight. I am in the habit of employing this formula daily in my practice. Its use is not confined to the treatment of bronchitis alone, for I find it equally serviceable in the whole range of acute pulmonary complaints as occurring in children. I do not regard the small amount of senega present as having an expectorant action, but more, if you like, of a specific effect upon the ciliated columnar epithelium of the bronchial tubes.

I seldom have to resort to opium except in combination with camphor, as in the tr. opii camph., when it is admin-

istered in five to ten-drop doses, principally at night, as a sedative for the cough.

Hot poultices of flaxseed, sprinkled on the surface with mustard, made large enough to encircle the entire chest and covered with oiled silk, form an important addition to the treatment of the severer grades of bronchitis. Pieces of tape extending across the shoulders should be tacked to the cloth holding the poultice, in front and behind, to prevent the poultice from slipping down. The effect of the heat and moisture, together with the counter-irritation produced by the mustard, which can be regulated in amount to suit the demands of the case, are unquestionably of the highest benefit. Where the bronchitis has extended to the infundibula and air vesicles, and catarrhal pneumonia has developed, I have every reason to believe that a continuous mild counter-irritation, with the flaxseed poultice lightly sprinkled with mustard, has often been the principal means of enabling me to witness the successful termination of my cases. The poultice should be changed about three times during the day and once during the night. Spongio-piline, wrung out with hot water, answers every purpose of the poultice, besides being cleaner and less troublesome to apply; but, being expensive, it can be afforded only by wealthy families. West recommends the spongio-piline to be sprinkled with a stimulating liniment, such as lin. camph. co., \mathfrak{z} j; tr. canth., tr. opii, $\mathfrak{a}\mathfrak{a}$ \mathfrak{z} ij. M., when it is desired to produce counter-irritation; but I have found the ordinary mustard, lightly sprinkled over the inner surface, do all that was wanted.

When the râles have become soft and bubbling, and not disposed to clear up quickly, I have found three to five drops of a saturated solution of muriate ammonia, given every two hours, have the happiest effect in clearing up the excessive secretion, notwithstanding in some cases evident signs of catarrhal pneumonia were present. It is important, especially in subjects of a scrofulous and rachitic diathesis, to establish a healthy condition of the mucous membrane of the bronchial tubes as soon as possible. In these cases there is a general tendency for some large ronchi to remain scattered over the lungs after the more severe symptoms have disappeared. The administration of tonics, as quinine and iodide of iron, together with cod liver oil, is here clearly indicated. Counter-irritation to the back, in the interscapular space, with tincture of iodine, should be used, as it is also rightly regarded as a valuable means of promoting ab-

sorption of the enlarged bronchial glands, which I have shown are likely to exist.

Inhalations have recently been introduced in the treatment of bronchial catarrhs, and have been found to give valuable assistance in hastening a cure. I have had little, if any, experience with them in children, but can see no reason why they might not be effective with those over two years of age. They may be used in the form of steam inhalations from a croup kettle, the water being medicated with turpentine, terebene, iodine or eucalyptus, or whatever article may be desired. Older children may submit to the use of the hand atomizer, in which the wine of ipecac, as recommended by Ringer, or Dobell's solution, which is alkaline and antiseptic, may be employed.

In those cases where bronchitis occurs together with diarrhœa as the result of changes of temperature, the antimonial wine in drop doses, repeated hourly, will be found to have a decided effect in relieving both affections at the same time. When the bronchitis occurs as complication of summer diarrhœa, counter-irritation to the chest with the flaxseed and mustard poultice, together with the administration of stimulants, is chiefly to be depended upon. In infants or weakly children, where a tendency to collapse of the lung is apparent, crying should be provoked and encouraged as much as possible, and alcoholic stimulants freely given. In such cases Day advises the child to be laid face downward, as it assists breathing, and prevents the tendency of the secretions to gravitate to posterior and lower surface of lungs. The same author also suggests that when vomiting becomes a troublesome symptom, the medicine be given immediately after a spell, in order that it may have a chance to remain longer in the stomach and some portion of it be absorbed.

Jacobi wisely advises plenty of water as a drink for the purpose of supplying a fluid for the liquefaction of the viscid secretions, and so promoting their easy expulsion. It will also prevent caseous degeneration by keeping the cells bathed in moisture that will hasten absorption.—*College and Clinical Record*.

Boracic Acid in the Treatment of Leucorrhœa.

FOR months past, I have made frequent use of boracic acid in the treatment of leucorrhœa in a manner hitherto

unmentioned, at least so far as has come under my notice, and with surprising success; in every case where I applied it, prompt and permanent improvement resulted.

Having had some excellent results from the boracic acid packing in chronic suppurative otitis, I determined to resort to its use in a similar way in a case of leucorrhœa, which had for several months resisted a most persevering use of the regular orthodox remedies—*i. e.*, nitrate of silver, tincture of iodine, fluid hydragris and bismuth, hot water irrigations, etc. The experiment was eminently successful, and the patient returned home within a fortnight well and happy, and has so remained ever since—many months—during which time I have had occasion to resort to the remedy frequently and with uniformly good results.

My manner of using it is as follows: Having first irrigated the vagina at as high a temperature as can well be borne by the patient, a cylindrical speculum is introduced and the vaginal walls very carefully dried, first with a soft sponge and then with absorbent cotton. This done, boracic acid in crystals is poured into the mouth of the speculum and pushed up against the uterus and vault of the vagina with a clean cork caught in a uterine sponge carrier, sufficient acid being used to surround and bury the intravaginal portion of cervix, filling the upper part of vagina. A tampon of absorbent cotton is then firmly pressed against the packing, and held *in situ* until the folds of the vaginal walls close over it as the speculum is withdrawn.

This should be allowed to remain three or four days, or even longer, as after this time there still remain some undissolved particles of the acid; nor will the tampon seem at all offensive. The ostium vaginæ, if examined in twenty-four hours, instead of being besmeared with the leucorrhœal secretion or discharge, presents a clean appearance, and bathed in a watery fluid which begins to appear several hours after the packing has been placed; and, in my cases, this was the only discharge noticed afterward.

However, a second, or even a third, repetition may be necessary; but in none of my cases, numbering nearly a score, have I found more than a second packing called for, and in many one sufficed; and in no instance has it occasioned pain, not even inconvenience. I do not claim for this agent and method infallibility, nor should constitutional dyscrasias be ignored and this local treatment be depended on unaided to effect a cure; but here, as in the treatment of

leucorrhœa by other remedies, a proper association of all means having a curative influence upon the disease constitutes the rational therapeutics. My individual experience with this remedy in the treatment of leucorrhœa, though limited to too few cases to establish its universal efficacy, if such a wide range of power can be claimed for any medicine at any time, none the less proves it as one of the agents which, when properly employed, promises much in the treatment of the annoying and, sometimes, intractable conditions constituting the pathology of leucorrhœa, particularly when the change is in the vaginal glands or mucous membrane, or from intracervical inflammation. Nor will harm likely result from its use, though it fail in maintaining the place my experience would give it.—*Schwartz, in St. Louis Cour. of Med.*

Legal Responsibility for the Unskillful Use of the Forceps.

WE do not remember to have read or heard of a suit for damages growing out of the unskillful use of the obstetrical forceps prior to our notice of the following case. That the misuse of this instrument might be regarded just ground for a civil suit no one can question, but the difficulties in the way of proving a case of damages against an obstetrician are quite innumerable, and so formidable as to deter most plaintiffs from a recourse to the law.

Who will not assert that the forceps unskillfully used are responsible for grave injuries to the perineum? Many gynecologists know this to be the fact, yet when the evidence is demanded to support this statement, the modifying circumstances are so numerous as to wholly destroy its value. As to the forceps being used at the proper time, in a proper manner and with necessary skill and care in any given case, who is to be the judge? How many such cases are witnessed by any other physician than the operator himself? Admit, too, that lacerations occur in the hands of most skillful obstetricians, and the difficulties in the way of proving an unskillful use of the forceps increase.

The following case tried before Mr. Justice Cave, at Guilford, England, July 21, 1887, (*British Medical Journal*, August 13, 1887), is of striking interest in this connection, since it explains an important medico-legal question, and

shows the difficulties which must attend this character of medical litigation.

In the case in question action was brought to recover \$2,500 damages for alleged negligence, unskillfulness and misconduct of the defendants in their treatment of the plaintiff's wife in and about her confinement. The plaintiff, one Gibson, alleged that he engaged the defendant, Jeffries, to attend his wife in her confinement, and that Jeffries negligently directed the defendant, Hills, to attend her; that Hills did not exercise a reasonable degree of skill or care, and was guilty of gross negligence and unskillfulness in conducting the delivery, whereby the plaintiff's wife was seriously hurt, wounded and mutilated.

Hills alleged that the labor was difficult, and that after waiting a reasonable time and finding the pains ineffectual and the head jammed in the pelvis, he, having obtained the husband's sanction, proceeded to deliver by the forceps. He did so, considering her condition was one requiring such assistance to effect delivery. The perineal rupture was unavoidable, and was not caused by any neglect on his part. To repair the wound he had inserted three or four catgut sutures, and had given proper directions to the nurse to keep the patient quiet afterward. On the fourth day after delivery Hills handed the case over to one Chapman, another assistant of Mr. Jeffries. Chapman gave evidence to the effect that he assumed charge on the fourth day, that he found the perineum deeply lacerated and the wound in a very bad state. He considered the forceps had been used too early in the case and too continuously, without giving the parts time to recover themselves, and that during the delivery the perineum ought to have been supported by the hand.

Mr. Jeffries witnessed that he had frequently engaged Hills before as his *locum tenens*, and that he had always given satisfaction.

Dr. Grailly Hewitt stated that the plaintiff's wife had consulted him about the injury to her perineum four months subsequent to the birth of her child. He found the perineum had been torn, the injury extending into the rectum. Dr. Hewitt refused to operate upon the case when he learned that an action for damages had been commenced by the patient and her husband. Dr. Hewitt expressed the opinion that, as to the forceps being used at the proper time, no opinion could be given unless after examination of the con-

dition at the time; it was for the practitioner to judge of that. His further testimony was corroborative of the correctness and skill of Mr. Hills' management of the case. The learned judge, in summing up the case, observed that medical practitioners were expected to bring to bear a reasonable degree of skill and care, otherwise they become liable.

The evidence showed that Chapman had quarreled with the defendant Jeffries, and his testimony was impeached. Three medical men, witnesses for the defense, alleged that it was impossible for them to say, unless present at the time of labor, whether instruments were properly used or not; and to form a judgment on this point the state of the patient must be known and considered. The judge virtually instructed the jury to bring in a verdict for the defendants, which was accordingly rendered as follows: "For the defendants; but we think there was not sufficient medical supervision over the nurse in the after-treatment."

It was shown by the evidence that Mr. Hills had failed to inspect the perineal wound, and had left its attention to a nurse. As he resigned the case on the fourth day into Chapman's hands, one may question whether the subsequent neglect was not as much attributable to Chapman as to Hills.

The case is instructive from several standpoints. *First.* The plaintiff denied Mr. Jeffries' right to employ a substitute in the management of the case, especially one less skilled than himself. *Second.* Whether the careless use of the forceps is not just ground for legal action. We think it is. *Third.* Mr. Hills was somewhat remiss in duty in not carefully closing the perineal tear.

Is it not incumbent upon the obstetrician to promptly discover the extent of the lesion, to confess the same and to attempt its repair by primary union? We think so. It was shown that the plaintiff had greatly suffered in health and in loss of money in consequence of the perineal wound. She was permitted to bear the effects of a lesion which might have been corrected, if not prevented, by skillful treatment. According to the evidence the jury could not do justly otherwise than find for the defendants, but it seems to us at this distance from the case that the plaintiff had good ground for instituting suit for damages.—*Ed. Maryland Medical Journal.*

Cause and Cure of a Certain Form of Backache.

BY SIR JAMES SAWYER, M.D., F.R.C.P.,
Physician to the Queen's Hospital, Birmingham.

EARLY in the year 1881, in a note which was published in a weekly professional journal, I asked the attention of my brethren to a form of backache which had not, so far as I know, been described before. I desire now to refer to this subject again, and to record that my further experience in practice has confirmed my previous remarks upon the point in question.

Subjective symptoms are always important diagnostic signs, and they are often clear therapeutic indications. Among such sensations, backache is frequently a leading symptom, and also one which is pressingly dwelt upon by patients. Of backache there are divers forms. Dr. George Johnson, in an able clinical lecture, and Mr. William Squire, in a practical memorandum, have drawn the attention of the profession to many of these. But they have not mentioned a variety of backache in which the cause of the pain is traceable to the condition of the large bowel. I find that some patients complain of a pain, aching, dull and heavy in character, and extending 'right across the back.' When asked to point out its position, they indicate this by carrying a hand behind the trunk and drawing the extended thumb straight across the back, in a transverse line, about half-way between the inferior angles of the scapulæ and the renal region. This pain I venture to attribute to a loaded colon; I conclude I have correctly found its proximate cause in fæcal accumulation in the large intestine. I have found it to disappear after the exhibition of an efficient cathartic. This form of backache is a concomitant of habitual constipation, and is especially significant of the alvine sluggishness of sedentary persons. In such a condition, as I have stated elsewhere, I find aloes, given in combination with iron, to yield the best results. We owe the valuable suggestion of combining iron with aloes, when aloes is given for laxative purposes, to the late Sir Robert Christinson. He showed that the cathartic property of aloes is much increased by its combination with sulphate of iron. Dr. Neligan, Dr. Kent Spender and Dr. David Bell have confirmed this experience. I prefer socotrine aloes, and I give of it one, two or three grains in a pill, combined with a quarter of a grain of sul-

phate of iron and one grain of extract of hyoscyamus. This pill should be taken every night. We must aim at producing a full alvine evacuation after breakfast. When a saline cathartic is indicated, I usually employ the old-fashioned Rochelle salt. This "goes" well with tea, coffee or cocoa. One or two tablespoonfuls may be taken at breakfast, dissolved in a large cupful of one of these beverages.
—*Lancet*.

Microscopy.

MICRO-ORGANISMS OF THE MOUTH.—Some interesting observations as to the action of micro-organisms occurring in the mouth upon some alimentary substances and fæcal matter, are recorded by M. Vignal (comp. *Rend.*, C. V., 311). The author states that he has obtained from the mouth nineteen different kinds of micro-organisms; of these, seven dissolve albumen, and five cause it to swell and become transparent; nine dissolve gluten; seven coagulate milk; six dissolve casein; eight convert starch; nine convert lactose into lactic acid; seven change cane-sugar, and six ferment glucose. Artificially prepared, pancreatic juice and bile exercise no injurious effect upon the organisms. In the fæcal matter, the author found six of the mouth micro-organisms and four others similarly active. The action of these micro-organisms upon food must be considerable, since the author calculates that one decigram of fæcal matter contains upward of *twenty millions* of organisms.

FOREIGN MICROSCOPES AND ACCESSORIES.—It seems the *Educational Supply Company* make a specialty of keeping on hand a large stock of foreign microscopes and accessories. From circulars sent us, we notice they import and sell the works of the manufactories of Hartnack, of Paris; Nacet, of Paris; Keitz, of Germany; Zeiss, of Germany; Reichert, of Vienna, etc.

They claim for the foreign microscope stands that "they are manufactured upon the most satisfactory model which has ever yet been designed for a microscope. The base is a solid brass horseshoe, which gives a steady and firm support to the instrument in any position in which it may be placed. The larger stands have a hinge, which allows of

any inclination. There are no useless appliances or ornamental attachments; but the aim is to supply the best practical, working instrument for scientific research in the studio and laboratory."

While no better microscope objectives are made in the world than are made in this country, yet, we presume, that more discoveries have been made in physiology and pathology, and in the various departments of what are termed the natural sciences, by Hartnack's glasses than those of all other makes put together. For a long time his objectives were used almost exclusively in France and all the countries of the Continent, by scientists; and, besides, were employed by very many in England and in this country. In fact, until about fifteen years ago, Nachet, also of Paris, was his only competitor. Until recently, there were no makers of objectives in Germany of any reputation. Gundlach, now of this country, was the first German maker of microscopic lenses who made objectives that obtained celebrity and possessed merit. There are a number, however, at this time, the most conspicuous of whom is Zeiss, of Jena. In England, very superior objectives have been made for a long time by Powell & Lealand, Beck, and Ross, of London. But the very high prices of English glasses stood in the way of their use upon the Continent. Henry Spencer, a backwoodsman of New York State, self-taught, was the first man in America who made a microscope lens possessing any merit. The lines upon the diatom, called *pleurosigma Spencerii* (named after him), were resolved the first time by a glass made by him. After obtaining great distinction for his superior work, he allowed himself to be lost sight of until a few years before his decease, which occurred only a few years ago, when he again came to the front. For a number of years, Tolles, of Boston, a son-in-law of Spencer, we believe, and his pupil, was the only maker of lenses of great distinction in this country. His objectives were not excelled by the finest artists in the world. Next to Tolles, in this country, ranked William Wales, of New Jersey, now, we believe, of New York City.

At the present time, the United States has quite a number of very eminent makers of fine objectives. Among them are Gundlach, who came from Germany to this country about twelve or fifteen years ago; Edward Spencer, who is a son of Henry Spencer; Edward Bausch, of Bausch & Lomb, etc. There is no need any longer of going to Europe

for good objectives at reasonable rates. When Tolles stood alone as an eminent maker, first-class glasses could only be purchased at high prices; but it is not so now. A scientist of very moderate means can now supply himself with an excellent microscope, with all necessary accessory apparatus, for an amount of money that he can easily spare.

There are a good many microscopists still in this country who are fond of French microscopes and objectives. Through this Educational Supply Company they can easily supply themselves at very moderate prices.

Gleanings.

RECTAL DISORDERS.—Dr. J. O. Lowrie, of Timpson, Texas, gives a résumé (*Texas Cour. Rec. Med.*, Aug., 1887) of the modern approved advances in regard to rectal disorders. Dr. Matthews, of Louisville, says *whisky drunk is a perfect anæsthetic* where heart or lung disease or the whims of the patient do not allow the use of ether or chloroform. For *fistula in ano*, Dr. Matthews, after finding out how many fistulæ, inserts a long laminaria tent, and lets it remain for several hours. Then he passes Otis' improved urethrotome, with a small point, and with the screw attachment dilates the sinus. The concealed knife is then protruded to the extent desired, and the instrument withdrawn, cutting through the walls of the sinus its entire length. The hæmorrhage and pain are of no consequence. Hoffman, of New York, carries a rubber tube into the sinus by means of a flexible silver probe with an eye, and its ends approximated. The tube soon sets up a destructive irritation of the sanious membrane, and in a few days there will be a healthy purulent discharge. The first tube is left *in situ* for a few days, and is then replaced in about three days by another of about half the size, and so on down. This is continued until a rubber thread is introduced; then a silver wire follows, and finally, after twelve or fourteen days the sinus is cured, without pain or serious inconvenience. About 1874, Verneuil, of France, accidentally cured some cases of *hæmorrhoids* by dilating the sphincters in search of other rectal trouble, and since then this has become a popular treatment—gentle but thorough dilatation of the sphincters. Its efficacy seems to be restricted mostly to piles of recent

formation, to those that are aggravated by aloes, and especially to those that are accompanied by rigidly contracted sphincters. But when the piles are long standing, constantly prolapsed, and control over the sphincters is lost, the ligature is *the* remedy. Dr. Matthews says he is more and more impressed by the important part the sphincter muscles play, not only in local manifestations, but also in producing obscure symptoms, and recites several cases.

EPISCLERITIS.—Dr. R. O. Cotter, of Macon, Ga., says (*Atlanta Med. and Surg. Jour.*, Aug., 1887) this disease, when chronic, is a most obstinate one, although not very dangerous—only endangering sight to the extent of opacities on the cornea. Rarely, the sclera becomes so thin at points as to allow ectosia or bulging at those points. Episcleritis appears as a small, dusky, red, slight elevation of the sclerotic close to the insertion of one of the recti muscles—usually the external one. Generally there is a subconjunctival redness, and the tissues are of a red, rusty, or purplish hue. When the conjunctiva is not involved, the vascularity and swelling of the tissues beneath the conjunctiva can be clearly seen. Photophobia may exist. Usually there is a ciliary neuralgia and lachrymation. The fact that the dusky little nodule does not break down and ulcerate, diagnoses it from herpetic or phlyctenular conjunctivitis. In chronic episcleritis, the cornea finally becomes cloudy at the periphery. It appears to be an infiltration of lymph, and the opacity seems brought about by the cutting off of nutrition on account of infiltration around the corneal periphery. As to treatment, his three cases were scrofulous. They were given cod-liver oil, potassium iodide (gr. x.) three times daily, good, nourishing food, and outdoor exercise. Solution of atropia (gr. ij to ʒj) was used locally as a sedative and to aid in removing opacities. Blisters on the temples helped to remove the ciliary neuralgia. All these cases went on for months with occasional perceptible improvement and as frequently relapsed. Increased doses of potassium iodide to ʒj gave better results. Atropia was not kept up all the time, for fear of producing glaucoma. All three got well with normal vision.

IRITIS is the title of a running, practical paper by Dr. R. H. Chilton, of Dallas, Texas (*Texas Cour. Rec. Med.*, August, 1887). By far the most frequent cause is syphilis; malaria is second in importance; idiopathic iritis is rare;

traumatic iritis is always serious. It is easily recognized by the severe pain radiating to the temple, the engorged blood-vessels of the iris, contracted pupil, and, in the beginning, the pinkish zone around the cornea. Treat the cause. Locally, atropia is indispensable. Dry cupping is preferable to local blood-letting. Hot water—fifteen minutes every hour—to the brow and temple as well as lids, relieves pain and assists in dilating the pupil. After the disease begins to subside, use iodide of potassium internally as an absorbent, etc. Cocaine gives more relief from pain than all other remedies combined. In kerato iritis, eserine combined with atropia is of great service. In chronic iritis or inflammation of any portion of the uveal tract, pilocarpin combined with cocaine to lessen the blood supply, and bichloride of mercury internally, are the best remedies. He has seen more cases of iritis following the treatment of syphilis by the Hot Springs water than when the disease is treated at home by the usual remedies.

INFANTILE DYSPEPSIA.—At a recent meeting of the *Academie de Medicine* M. Hayem read a paper on the treatment of dyspepsia in infancy, and especially that form of it which is accompanied by green-colored diarrhœa. He points out that the green color seen in diarrhœa of infants at the breast is due to a substance produced by a particular bacillus. He maintains that the disease is contagious, and that the germs deposited on the napkins from the stools are contaminating agents. All linen or flannel, therefore, which is soiled either by vomited matter or dejecta should be removed as quickly as possible, and plunged into pails containing a one per cent. solution of corrosive sublimate. A teaspoonful of a two per cent. solution of lactic acid should be given to the infant a quarter of an hour before putting it to the breast. From five to eight doses are given in twenty-four hours which represents about 40 to 60 centigrammes of pure lactic acid.—*British Medical and Surgical Journal*.

MALARIAL SYMPTOMS DUE TO TRAUMATISM (?).—Dr. R. R. Harden, of Harmony Grove, Ga., reports (*Atlanta Med. and Surg. Jour.*, Aug., 1887) the case of Mrs.—, age fifteen, married that morning, July 14. Retired at 9 P.M. At midnight he was sent for. She was exceedingly nervous; temperature 102.6°. Gave potassium bromide and tincture of valerian. Next morning about ten o'clock temperature

and pulse increased a little, but less nervous. Next morning, temperature 103.5° ; pulse 115. There had been remission last evening. Temperature rose regularly each day until 19th it was 105° and pulse 120. He then learned that on the night of marriage her husband's approaches gave great pain, and a severe hæmorrhage set in. The addition of quinine in free doses to the sedatives rapidly restored health.

A NEW TEST FOR MORPHINE.—A novel and very beautiful test for the presence of small quantities of morphine ($\frac{1}{200}$ gr.) has recently been suggested. To the solution to be tested add a few drops of strong sulphuric acid and about the same quantity of a solution of sulphate of sodium. Heat the mixture in a porcelain capsule, and directly it begins to give off sulphuric vapor; cool it suddenly, when it assumes (if morphine be present) an intense violet coloration. If the mixture be further heated, it turns brown, and when cooled, the addition of a few drops of water determines a vivid red coloration, which turns a pale green if more water be added. If at this stage an equal bulk of chloroform be poured into the mixture and well shaken, the chloroform becomes of a bright blue color.—*British Medical Journal*.

TREATMENT OF PILES BY DILATATION.—In the *Gaz. des Hopitaux*, M. Verneuil publishes a note on the treatment of piles by dilatation. According to the author, ninety-eight cases out of a hundred may be radically cured by this simple process. The duration of the treatment scarcely ever exceeds eight days, during four of which the patient remains in bed, and during the remaining four days in his room. Piles of six, eight, ten, twelve and fourteen years' existence have been completely cured in this manner. Even in cases in which the disease is complicated with true rectal prolapsus, dilatation should be had recourse to. During fifteen years that the author has practiced this method, he has not met with one unsuccessful result. He prefers the speculum to the digital method of dilatation.—*Medical and Surgical Reporter*.

THE REMEDIAL VALUE OF BLOOD-LETTING.—It has often seemed a matter of regret that a remedy of such unquestionable power as blood-letting should, from former abuse, be reckoned by many as among the things of the past, and that it should have run the risk of being denied all virtue because

of some inherent faults, which, however, are quite capable of compensation. Its very power, and the exact results which in fitting cases attend its employment, doubtless led to its indiscriminate use, and, inasmuch as it is spoliative in its nature—a power fraught, it may be, with the greatest evil—it is not difficult to see how readily it might be abused. —*Atlanta Medical and Surgical Journal*.

RENAL CALCULUS.—Dr. Wright ("Med. Chron.") says that if lumbar pain and tenderness, with radiating pains and frequent micturition, be present, the case may be one of renal calculus, early tuberculous kidney, floating kidney, spinal caries, pyelitis, or superacid urine. The two latter yield readily to treatment, and can be readily excluded. If no blood or pus be found on repeated examinations at long intervals, the probability of spinal caries is great, especially if the patient be tubercular. If hæmaturia be found, even once, in large or microscopical quantities, if the symptoms be intermittent and of long duration, a renal calculus is probably present. Considerable pyuria indicates a tuberculous kidney. A floating kidney can usually be felt. In some cases the diagnosis can be made only by exploration. Renal hæmaturia is the single symptom of cardinal importance, and this, if the trouble be of more than a year's standing, if there be no evidence of nephritis, and if no tumor be felt, makes the diagnosis of calculus fairly certain.

INDICATIONS FOR OPERATION IN LACERATED CERVIX.—Dr. W. Duke, of Memphis, Tenn., urges (*Miss. Val. Med. Monthly*, Aug., 1887,) the necessity of the operation when there is any peri-uterine cellulitis, subinvolution, granular or cystic degeneration, etc. The great danger of non-repair is cancer. There is no part of the woman so liable to cancer as the glandular lining membrane of the cervix uteri. After preparatory treatment by hot water injections, puncturing of cysts, applications of alteratives—such as iodine, nitrate of silver, glycerole of tannin, pessary, etc.—the curative treatment consists in repair of the laceration by trachelorrhaphy after the patient's health becomes good.

LUXATED INTERNAL KNEE-JOINT CARTILAGE.—Lang ("New York Medical Jour.") advises, in order to reduce a luxated internal fibro-cartilage, flexing the knee fully, keeping it flexed for a little time, then rotating the leg firmly inward, and extending it somewhat suddenly while maintain-

ing rotation inward, at the same time pressing the rim of the cartilage inward over the inner tuberosity of the tibia. The inward rotation of the leg is most important, as it brings the inner condyle of the femur more closely in apposition with the corresponding articular surface of the tibia, and by extending the knee while maintaining this inward rotation, the internal condyle is kept moving truly in its socket, and does not ride upon too much of the semilunar cartilage. This rotation is opposite to that in which the leg is placed when the luxation happens. The patient should habitually walk with the toes turned inward after recovery from luxation of the internal, or outward if it was of the external, cartilage.

PREVENTION OF CONSUMPTION. — Dr. J. W. Penn, of Humboldt, Tenn., thinks (*Southern Practitioner*, Aug., 1887,) that a seton introduced at some point, affording as little inconvenience as possible, and at the same time securing a copious flow of pus (as about two inches posterior to the nipple and below the axilla) from the very first indication of phthisis, is the most rational and effective preventive treatment of consumption. Of course, the best hygienic treatment must at the same time be taken up. He has been led to this view by a case or two in point.

CARBOLIC ACID FOR CARBUNCLE. — In 1874, Dr. R. B. White, of Ennis, Texas, aborted (*Texas Cour. Rec. Med.*, August, 1887) a carbuncle by stuffing the little cavities and sinuses of the forming tumor with lint saturated with carbolic acid; and ever since then has used it with uniform success in like cases. He got the idea from an article by Dr. Peter Eade, of England, in *London Lancet*, of 1874, where he says he published the method in same journal in 1870.

ALCOHOL IN MEDICINE. — Dr. Eugene Foster, of Augusta, Ga., continues his excellently well prepared defense of the use of alcohol in the practice of medicine, in the August number, 1887, *Atlanta Medical and Surgical Journal*. He answers in the affirmative, with good supports, the question, "Is there sufficient justification in any therapeutic advantage for existing use of alcoholic liquors by medical men?" The subject is to be further continued in the *Atlanta Journal*.

SALOL. — Salol is stated by Dr. Aschenbach, of Corfu, to be a most useful remedy in sciatica. He took a dose of eight grains each evening, and sixteen grains on going to bed, sleep being soon induced, and he remained free from pain during the whole night. — *Pharm. Record*, page 230.)

Book Notices.

DRUITT'S SURGEON'S VADE-MECUM. A Manual of Modern Surgery. Edited by Stanley Boyd, M. B., B. S. LOND., F. R. C. S., ENG., Assistant Surgeon and Pathologist to the Charing Cross Hospital, and Surgeon to the Paddington Green Hospital for Children, etc. Twelfth Edition. With Three Hundred and Seventy-three Wood Engravings. 8vo. Pp. 985. Leather. Philadelphia: Lea Brothers & Co. Cincinnati: R. Clarke & Co. Price, \$5.00.

Druitt's Surgery or Druitt's Surgeon's Vade-Mecum has been an exceedingly popular work in the profession. In fact, very few medical works have become so widely known as it. It is stated that 50,000 copies have been sold in England, while in the United States, ever since its first issue, it has been used as a text-book to a very large extent. During the late war in this country, it was so highly appreciated that a copy was issued by the Government to each surgeon serving in the Federal Army.

The present edition is the twelfth, certainly a very high number for any medical work in these days to attain, when book-making is so very active. A work that reaches a third or fourth edition nowadays is regarded as having met with great success. Druitt's work, however, might easily have been in its fifteenth edition if it had had an editor to keep it abreast of the times. In 1877, ten years ago, its eleventh edition was published when antiseptic surgery was still on its trial, ligatures were left hanging from wounds, etc. If it had not been for its excellent features, surely, in consequence of being so far behind in its teachings, the reprints of the eleventh edition would have met with so little demand, that the work could not now, after so long a time, be made to resume its place as a text-book.

Mr. Druitt was so very successful in devising a plan for a work upon surgery for students, that his work immediately met with the approval of teachers of surgery, students of surgery, and surgical practitioners. He began first by elucidating the principles of surgery, which was followed by a description of surgical affections and their treatment, as inflammation, ulcers, gangrene, tumors, venereal diseases, etc., and then he passed to the consideration

of injuries, fractures, dislocations and their management. This work better filled the general idea of a text-book upon surgery than any other publication preceding it. The consequence, very naturally, was that right away it became very popular in the profession, and has constantly maintained its popularity.

It will readily be seen that a work like this one should be changed as little as possible; that it should be changed only as it becomes necessary to incorporate into it the advances that are made in the science of surgery, or as old notions once held to be valid are disproved. In the last two editions previous to Mr. Druitt's decease, he was assisted in revision by Prof. John Wood, of King's College, and Mr. R. W. Parker. This, the twelfth edition, as will be noticed, has been edited by Mr. Stanley Boyd.

We feel sure that both students and practitioners of medicine will be greatly pleased that they will now have the opportunity of making use of Druitt's Surgeon's Vade-Mecum. For at least thirty-five years it has been a surgical text-book, so that the son can now study the same work which his father did. The present edition, while it has the same features peculiar to the work at first, embodies all recent discoveries in surgery, and is fully up to the times.

SURGERY; ITS THEORY AND PRACTICE. By William Johnson Walsham, F. R. C. S., Assistant Surgeon to St. Bartholomew's Hospital; Surgeon in Charge of the Orthopedic Department and Demonstrator of Practical Surgery at St. Bartholomew's Hospital. With Two Hundred and Thirty-six Illustrations. 12mo. Pp. 655. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co. Cloth. Price, \$3.00.

Not a few of the works upon surgery which were designed at first as text-books have been so increased in size at the present time, and became so voluminous with the advance of surgery, as really no longer to be suitable as text-books. They are valuable only, in fact, to the surgical practitioner who, when he consults a work upon any subject, desires full information upon it together with the views of eminent men of the profession. The author of the volume before us has prepared it with reference to the wants of the student, so that he can gain an insight into the theory and practice of surgery.

The various subjects of surgery are treated, of course, as

briefly as possible, but, at the same time, it has been the object not to make such sacrifices to brevity as to fail to give a clear understanding of whatever is treated. The principles, therefore, that underlie the science of surgery are fully treated, and nothing is omitted that is essential to impart a full knowledge of the indications that should guide one in the practice of the art.

The author has given special prominence to those subjects with which every student ought to be acquainted; while the rarer injuries and diseases have received but a brief mention, or have been altogether omitted. No account has been given of the specialties of the eye and ear, as the pathology and treatment of the diseases of these organs are best studied in some one of the very many monographs which are found devoted to them. Some of these monographs are large voluminous works treating each subject in the most detailed style, while others are but brief epitomes of the authors' own views.

We have no doubt but that students in attendance upon colleges, or engaged in studying in the wards of hospitals, will find the work just suited to their wants. The ease with which it can be referred to and consulted upon any subject will make it very convenient for the use of students and busy practitioners of medicine.

THE STUDENT'S GUIDE TO DISEASES OF THE EYE. By Edward Nettleship, F.R.C.S., Ophthalmic Surgeon to St. Thomas' Hospital; Assistant Surgeon to the Royal London (Moorfields) Ophthalmic Hospital, etc. Third American from the Fourth English Edition. With a Chapter on Examination for Color Perception. By William Thompson, M.D., Professor of Ophthalmology in the Jefferson Medical College of Philadelphia. 12mo. Pp. 475. Cloth. Philadelphia: Lea Brothers & Co. Cincinnati: R. Clarke & Co. Price, \$2.00.

We have noticed previous editions of this work, which has now reached a third edition in this country and a fourth in England—strong evidence, surely, that it has met with approval. As the title indicates, it has been especially prepared for the use of students. This fact, however, does not imply that it is not adapted for practitioners. On the contrary, we regard it as a very valuable work for the general practitioner, who has too little time to consult large

works, whose pages are filled with details and with discussions of undetermined questions.

It is a task of no little difficulty to prepare a work suited for students. It is only after one has obtained a large amount of experience as a teacher, so as to fully understand the wants of students, that he becomes qualified to prepare a text-book for their use. A student should first be thoroughly grounded in the principles of any science which he has set out to learn. When he begins the study of the principles and practice of diseases of the eye, he must, of course, at first familiarize himself with the anatomy and physiology of the eye, then the pathology. After he has acquired this preliminary knowledge he may begin the study of the diseases of the eye and the methods of treating them. It is always advisable in preparing a work for students to omit, as far as possible, all unsettled questions, presenting such facts as ophthalmologists generally are agreed to be demonstrated. The author of the small work before us, we think, has succeeded exceedingly well in preparing a text-book for students adapted to their wants. We would select it in preference to any work with which are acquainted to place in the hands of a student.

The present edition has been greatly improved. No pains have been spared to place it, in every particular, upon a level with the latest developments of the specialty of which it treats. In addition to a most careful and thorough revision by the author, comprising many important changes and additions, there has been inserted the chapter from the previous edition upon the detection of color-blindness, from the pen of Dr. Wm. Thompson, whose methods of investigation have been generally adopted for the examination of railroad employes.

The work has been beautifully printed on the very best quality of paper.

SOLUTION OF CHLORIDE OF ZINC.—Dr. Edward Hamilton, in his address on Surgery before the British Medical Association in Dublin, remarked that by dressing a cut surface with a chloride of zinc solution it rendered it *a barren cultivation ground*, notwithstanding that Dr. Koch has pronounced that compound to be inert as a germicide. He states that the germs can not undergo their life changes and produce their effective results unless their environment is capable of developing and sustaining these changes.

Editorial.

THE INTERNATIONAL MEDICAL CONGRESS. — This great gathering of distinguished medical men of the world at Washington has been held and adjourned. Its proceedings, so long a subject of great interest, have become a part of the history of the past. There is every reason to believe that the Congress was a great success. It was more largely attended than any of its predecessors, and there were present more medical men of acknowledged eminence in the profession, than were ever known to attend a meeting of the Congress before.

At the time we write we are unable to give a connected account of the proceedings from the opening of the meeting to the adjournment. Thanks to our friend, Dr. William C. Wile, who, in conjunction with Dr. J. V. Shoemaker, is editor of the *Medical Register*, of Philadelphia, we have been supplied with duplicate copies of that journal, which was published daily at Washington during the whole session of the Congress. The profession of the whole country will be greatly indebted to these gentlemen for expending the time and labor they did, that physicians throughout the length and breadth of the land might have a very detailed, connected and intelligent account of the doings of the largest gathering of learned and distinguished medical men the world has ever known. The information we will give in this article, in regard to the Congress, we have culled from different numbers of the *Medical Register*.

The Congress which has just adjourned, as our readers are aware, was the Ninth International Medical Congress. Its sessions opened, as had been announced long ago, on Monday, September 5th, at 11 o'clock A. M. The place of meeting was Albaugh's Opera House. Long before the curtain rose from the stage every available seat was occupied, the ladies present being admitted to the gallery only. When the curtain rose, the Hon. Grover Cleveland, President of the United States, was recognized as the central figure on the stage, with Hon. Thomas F. Bayard, Secretary of State, on one hand, and Hon. John G. Carlisle, Speaker of the House of Representatives, on the other. Amid enthusiastic applause, Prof. Henry H. Smith, M.D., of Philadelphia, the Chairman of the Executive Committee, came forward and announced that the Congress would be formally opened by

the President of the United States. In a few simple words the President paid a strong and graceful compliment to the medical profession and the noble science to which its members are devoted. He then formally declared the Ninth International Medical Congress open.

The Chairman of the Executive Committee then presented Prof. Nathan S. Davis, of Chicago, the President of the Congress, who, being elected, took the chair. The Secretary-General, Dr. John B. Hamilton, Surgeon-General of the U. S. Marine Hospital Service, then made his report. The President introduced Hon. Thomas F. Bayard, Secretary of State, who delivered an eloquent address of welcome. The following distinguished representatives of foreign countries were then presented and made brief addresses: Dr. Lloyd, Deputy Inspector-General of the Royal Navy; Dr. Le Fort, of Paris; Prof. Semmola, of the University of Naples; Dr. Charles Reyher, of St. Petersburg; Dr. Unna, of Hamburg, Germany. The President, Dr. Davis, then delivered his address, and the first general session closed.

The *Medical Register* said in regard to the first general session: "The large attendance and enthusiasm of the members, the presence of such a great number of physicians of national reputation, together with so many distinguished foreign members, made the opening impressive, and a guarantee of the complete success of the Congress. Indeed, it was generally remarked that the indications promised that this Congress would surpass all its predecessors."

At the general session of the second day, Prof. Austin Flint, of New York, delivered an address entitled "Fever: Its Cause, Mechanism and Retroval Treatment." He began by saying: "In the classical monograph on inanition by Chossat, published in 1843, is the following sentence: Inanition is 'a cause of death which marches in front and in silence in every disease in which alimentation is not in a normal condition.' A few years later Graves, of Dublin, insisting upon the importance of alimentation in the management of continued fever, said that if he had met with more success than others in the treatment of the disease, it was owing, in a great degree, to the counsel of a country physician of great shrewdness, who advised him never to let his patient die of starvation. Nearly half a century has elapsed since Chossat, after observation and experiment, recognized inanition as a cause of death in diseases which were then treated by depletory, so-called antiphlogistic

measures, and Dr. Graves received his advice. Within that time the ideas embodied in the two quotations I have made have taken a permanent place among the accepted principles of the science of medicine. The researches of the physiologist have enabled him to recognize the natural history of many diseases, undisturbed by active therapeutical measures, has been studied and the self-limited character of a large number of these diseases has been established, and now in the treatment of certain cases abortive measures having been found ineffectual, the resisting and recuperative powers of patients are sustained."

At the session of the third day President Davis announced that Prof. Unna, of Hamburg, would deliver his address on Thursday, and Dr. Blandford, of London, on Friday. He then introduced Senator Semmola, who spoke in French. In his address Senator Semmola said that he might divide the history of medicine into three periods: First, the Greek period, largely based on the teachings of Hippocrates. Second, the mediæval period, one of utter darkness, in which men thought more of domination than observation; and the period of "experimental method," started in Italy, and now become the only recognized method of scientific research. The experimental method comported the observation of nature in her native garb without analytical reservations and without subjective reasoning. It was the obstinate search after facts and facts only. This was the method which had given us electricity, steam power, and a thousand other attributes of modern civilization. To it we were indebted for the men of genius, to whose number America has so largely contributed.

The next, or Tenth International Congress, will be held at Berlin in 1890.

The President and Mrs. Cleveland shook hands with more than four thousand persons Tuesday evening at the reception tendered the members of the International Medical Congress. In a conversation with a personal friend, Mrs. Cleveland said the members of the Congress presented a degree of respectability in appearance and deportment far surpassing any other similar body of gentlemen she had ever met. Her complimentary remarks about the doctors' wives excited some interesting comment.

A SAD ACCIDENT TO A DELEGATE ON HIS WAY TO ATTEND THE INTERNATIONAL CONGRESS.—On the excursion train from

St. Louis over the B. & O. Road a sad accident occurred, whereby Dr. A. Wetmore, a delegate from Illinois, was thrown off the train during the night, or during the early morning, he having gotten up and gone out on the platform and by some sudden turn probably thrown off. His absence was not observed for five or six hours, when search was made for him without avail. His outer garments and hat were found in his state-room. Then inquiry was made along the road, but nothing was heard of him. Twenty-four hours later information was received regarding an unknown man who had been picked up by the side of the track in a seriously injured condition. This man was afterward identified as Dr. Wetmore, and we have since learned that he has died. This is the only sad accident connected with the opening of the Congress. Dr. Wetmore was a physician of high standing, interested in medical society work, and it is sad, indeed, that in going so long a distance with a view of engaging in the International Congress to show the interest he took in it and his desire to manifest his gratitude to the profession, there should be so disastrous a termination.

THE BERGEON FIZZLE. — A certain surgical instrument house, not long ago, wished to place an advertisement in the MEDICAL NEWS and pay us with instruments for administering the Bergeon treatment for consumption. We declined to accept payment for advertising in any other medium than money. From what is said by an exchange in regard to the Bergeon treatment, we fear that, if we had closed with the offer of the surgical instrument house, we would have had the instruments left upon our hands, unless we could have sold some of the rubber bags as gas bags. But there are so very many *gas bags* about everywhere nowadays, that we doubt if we would have met with much demand for them.

The *exchange* to which we allude speaks as follows in regard to the Bergeon method of treating consumption, heading the article "The Bergeon Fizzle:"

"The gaseous enemata bubble has at last been pricked, and we are glad to note the fact. All these sensational and spasmodic efforts to vaunt a 'new cure' for that dread scourge, 'consumption,' are not only futile—they are positively harmful, and at the same time immeasurably cruel. They cause the poor sufferer to indulge false hopes of speedy recovery, whereas every year more emphatically demon-

strates that the relief and 'cure' of this class of patients must be sought through *increased nutrition* and agencies which cause the system to more perfectly assimilate and appropriate the food ingested. There is no other 'cure' possible. On this point the profession is coming to a unit.

"At the last annual meeting of the Pennsylvania State Medical Society, at Bedford Springs, Dr. W. F. Waugh, of Philadelphia, gave an able résumé of the evidence *pro* and *con.* concerning gaseous enemata as a method of treating phthisis. He showed that five years before Bergeon made his sensational claims, an eminent and equally reliable French physician had published results obtained by causing his phthisical patients to inhale a mixture of carbonic acid and oxygen gases. These were even better than those reported by Bergeon. Dr. Waugh further showed that Bergeon, in his later experiments, rejected the sulphuretted hydrogen and relied wholly on carbonic dioxide.

"Unquestionably this gas is to some extent decomposed in the system and liberates free oxygen; and we incline to the opinion that on this latter gas the good effects of the treatment depend. Oxygen is a vital supporter. It stimulates digestion, induces better assimilation, is a safe and powerful antiseptic. These properties have been practically overlooked.

"It behooves the profession to give more attention to the study of gases which have at least a rational basis for their claims as therapeutic aids, rather than go to extremes in their own over-confidence in French novelties which are based on neither reason nor science."

THE CARE OF MILK.—It is said by those who are in a position to know that milk, when taken from a cow, should be at once thoroughly cooled by either placing it in a tank of cold spring water or ice-water, the water being the same depth as the milk in the can. If the water in the can is not ice-water, it should be kept flowing.

When milk is delivered to residents in a city, in summer, the cans containing it should be kept covered, and a cloth, soaked in cold water, wrapped about them. But how often are seen milk-wagons going about the streets with the milk-cans exposed, in summer, to the direct rays of the sun, the thermometer in the shade ranging from 90° to 100°, and in the sun from 115° to 125°? At no season should the milk be frozen; but no buyer should receive milk which has

a temperature higher than 65° . Changes short of souring take place in milk in an exceedingly brief space of time. It is unfit for food for children for some time previous to its becoming acid. It is the most nutritious and the most apt to agree with the stomach of an infant within the first hour after it has been drawn from the cow's udder.

Milk should never be kept in sleeping and living rooms. If, however, this can not be avoided, the vessels containing it should be carefully covered. There is scarcely any fluid that possesses such great absorbent powers. It readily takes up morbid germs and is soon affected by bad odors. Drains from refrigerators should never lead into cesspools or communicate with kitchen drains. The only vessels suitable to hold milk are tin, glass or porcelain. After one supply has been exhausted, the vessel should be thoroughly scalded before another supply is placed into it. A few drops of milk of one day, left in a vessel, will, in a very short time, destroy the healthful qualities of that of the next day. All intelligent dairymen understand the pernicious effects of old milk upon new or fresh milk, and, consequently, thoroughly scald all their cans so soon as they have become emptied of a previous milking.

Those who reside in cities should convince themselves, before engaging milk from dairymen offering to supply them, that the cows are healthy, in good condition, and are not fed upon slops, or the refuse of breweries, or glucose factories, or any other fermented food. They should feel assured that they roam in summer-time in pastures where they can feed upon good grass in which there are no noxious weeds, have clean, running water to drink, and are not compelled to drink from pools of stagnant water. In the winter they should be kept in clean stables and fed upon good hay, sound grain and chopped food; they should have, too, proper exercise every day.

DIPHTHERIA.—Dr. Charles Warrington Earle, of Chicago, read a paper upon Diphtheria at the International Medical Congress held at Washington, in which are a number of very interesting deductions, some of which accord with accepted views and some do not. Dr. Earle, it seems, has given much attention to the causes which tend to increase and diminish the prevalence and severity of diphtheria, and his opinions, therefore, are worthy of having much weight attached to them. The conclusions which he set forth were

based on letters of inquiry to physicians in the great Northwest of our country—those having experience in Dakota, Montana, Wyoming, Utah, California, and in that country made up of mountainous ranges and prairies. The testimony was universal that we must look for the first cause of diphtheria in a germ, and that the former etiology, such as filth, emanations and sewer gas, only increases the virulency of the disease. The habit of allowing public funerals when people have died of infectious diseases was severely condemned.

The following are conclusions at which he has arrived:

1. Diphtheria occurs in the mountains and prairies of the great new Northwest with the same malignancy as in cities.
2. Diphtheria takes place with equal virulence in vicinities remote from sewers.
3. Diphtheria once present, the inhabitants in damp sod-houses, those living over cellars containing decomposing vegetables, and proximity to manure heaps and poorly constructed sewers seem to be in surroundings which tend to increase the severity of the malady.
4. The fact is again demonstrated, although developed incidentally, that the contagious element may be carried or transported thousands of miles in a manner difficult to understand.
5. Testimony is abundant that the poison may be transported by means of cars and steamers. This fact calls for increasing watchfulness and more efficient means of disinfection than has been heretofore practiced by our railroad companies.

Dr. Earle is of the opinion, considering the great carelessness of the people, that laws should be enacted compelling people to assume some responsibility in regard to contagions. But the Doctor should know that laws are not self-enforcing, and that, unless the people cordially approve them, they will remain upon the statute-book a dead-letter.

PROPRIETARY MEDICINES.—Dr. J. E. Stewart, of Wilmington, Del., denounces, in strong terms, the proprietary preparations which have been increasing to a great extent of late years. He says, in a paper, that the manufacture and sale of medicines is being diverted from its legitimate channels and directed into the hands of uneducated drug merchants, ignorant alike of disease and its treatment. The pharmaceutical profession are, to no small degree, he con-

tinues, usurping the prerogative of the medical profession, whose province it is to treat the sick. Though the large manufacturing houses are turning out elegant goods, they keep the processes for preparing them secret, and medical science, in consequence, suffers.

Dr. Stewart charges that medical editors are loath to say anything against the manufacturing houses who are their advertising patrons, and who help to support their journals. But we will assure the Doctor that the time is not far distant when medical editors will be compelled to slough these fellows off from their advertising pages, for not a few are becoming insolent to a degree that is truly astonishing. There are some of them who are demanding, not merely that their advertisements shall appear in the advertising department of the journal, but that their preparations shall be noticed and commended in the editorial pages, whether the editor has had any personal experience with them or not. We have put out of our journal more than one of these quack pharmaceutical institutions that has had the audacity to demand us to puff their miserable stuff.

But we will have more to say on the subject at another time.

THE SYMPATHETIC NERVE.—We have received from Fowler and Wells, of New York, a large, finely executed colored plate of the sympathetic nerve. It is printed on close, heavy, firm paper, thirty-seven inches in length and nineteen inches in breadth. The plate represents the left lateral half of the body with all the great organs in situ—the lachrymal, the sublingual, submaxillary and thyroid glands; the trachea, the right bronchus cut at its origin; the esophagus penetrating the diaphragm to continue with the stomach; the stomach, the heart, the bladder half distended, etc. On all these organs the branches of the sympathetic are seen distributed. Besides the great organs, portions of the vascular system, as the arch of the aorta, arteria innominata, subclavian artery, inferior thyroid artery, portions of the external carotid artery, trunk of the pulmonary artery, vena cava, superior and inferior, etc.

There are represented the Medullo-Cerebral Nervous System and the Ganglionic Nervous System.

Physicians and medical students will find the plate of great assistance to them in studying the anatomical distribution of the great sympathetic nerve, which brings all the or-

gans in relation to one another and in sympathy with each other.

A CURE FOR DIPHTHERIA.—The prescription below was recently handed us, the party stating that it had been used in many cases of diphtheria and had cured them all. It emanated from a physician located in the eastern part of the State of Ohio :

R.	Pilocarpine Mur.,	.	.	.	gr. j
	Pepsine Sacch.,	.	.	.	3 ss
	Acid. Hydrochlor.,	.	.	.	gtt. x
	Syr. Simp.,	}	.	.	
	Aq. Destill.,	}	.	.	āā 3 iv.

M. Sig. One tablespoonful each hour. Children should receive proportionately small doses. Wine or other alcoholic stimulants should be given in conjunction freely.

We do not know in what constituent the specific properties depend, if the prescription possesses any specific properties in diphtheria. Pilocarpine is an alkaloid of Jaborandi.

A NEW NEEDLE-HOLDER.—A needle-holder invented by Dr. Geo. E. Jones, of this city, (not patented) and made by William Autenrieth, surgical instrument maker, is the best needle-holder ever devised. It is more simple, reliable and convenient than any other now in use. It will not allow the needle to rotate or slide, no matter in what direction it is set. It does not require any attention during the operation. It is made in three different grades, one for a pocket-case, one for gynecological purposes and not changeable, and one for same purpose changeable for a Sims' knife-holder, a gauge, a Jenks' scissors for pairing, and the needle-holder part.

Send to William Autenrieth, 71 W. 6th Street, for a circular.

THE PHYSIOLOGY OF BERGEON'S ENEMATA.—The *Gazette Hebdomadaire* is authority for saying that at a recent meeting of the French Academy of Sciences, Bergeon read a communication in which he stated that carbon dioxide, when introduced into the intestines, was eliminated by the lungs in a manner similar to the diuresis of fluid through the kidneys. He stated that the tissues thus became im-

pregnated with it. Pure gas was eliminated by the lungs; impure gas remained in the intestine, causing distension and colic.

We presume that if the tissues become impregnated with the gas, after having been injected into the intestines in cases of consumption, the tubercular bacilli are destroyed by it, and consequently further deposit of tubercular material is checked, giving the patient an opportunity to recover. This, we presume, is the philosophy of Bergeon's method of treating consumption.

HOW JOHN S. BILLINGS HONORS HIS PROFESSION.—Dr. Phillips, of London, told the following story to Dr. Lewis H. Sayre, Dr. Murrell and Dr. Dolan: "Billings had been around London, and had seen prominent men and tried to dissuade them from attending the Medical Congress. He saw Mr. Erichsen, who said to Dr. Billings that the difference between Americans and Englishmen is, that Americans quarrel and wash their dirty linen in public, whereas Englishmen quarrel and wash their dirty linen in private. 'You Americans quarrel and make up your quarrels in a little time. We Englishmen quarrel and never make up our troubles. I, as an Englishman, have nothing to do with the difficulties of American physicians, and, consequently, have determined to accept the honor of the Vice-Presidency tendered me.'"

DR. FELIX'S CAUSTIC PASTE.—This new caustic paste possesses the advantages of not being deliquescent and of keeping a putty-like consistence, being, in consequence, easily manipulated. It does not cause severe pain or set up any general reaction; the eschar is hard and well defined, and the caustic acts also as an antiseptic and hæmostatic. The formula given is as follows: Starch, 37 parts; wheat flour, 112 parts; bichloride of mercury, 1 part; dry chloride of zinc, 140 parts; pure iodol, 10 parts; croton chloral, 10 parts; bromide of camphor, 10 parts; crystallized carbolic acid, 10 parts; distilled water sufficient to form a stiff paste. The paste is allowed to remain on from six to twenty-four hours, according to the amount of eschar it is desired to form.—(*London Lancet*, August 6, page 277.)

THE CINCINNATI MEDICAL NEWS.

VOL. XX. No. 238.
Old Series.

OCTOBER, 1887.

VOL. XVI. No. 10.
New Series.

Original Contributions.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS, from the French, by Dr. Illovy,
Cincinnati, Ohio.

THE FALSE TESTIMONY OF CHILDREN BEFORE COURTS OF JUSTICE.

Read before the Academy of Medicine (Paris) by Dr. Motet.

I KNOW nothing that so moves the feelings as the recital of a child of a crime of which it has been either the witness or the victim. The simplicity of language, the naiveness of the relation singularly augment the interest and add to the confidence therein. The auditors are easily moved, the emotion grows upon them, an emotion combined of indignation at the horrible adventure and of pity for the child.

Laseque relates that he was once called to intervene in a very serious case. One day a certain merchant is summoned before the Judge of Instruction (something like our Police Judge) on an inculpation of having made an indecent attack on a girl of ten years. He indignantly protests, and affirms that at the hour at which he was to have made the assault he had not yet left the house. This is how this fable took its rise; the child played truant and came home long after the usual hour; on its arrival the mother at once questioned it as to the cause of its remaining away so long, and where it came from; the child stammers something unintelligible; the mother presses it with questions, she imagines that the child has been the victim of an assault, and once launched on this track, she questions the child

in this sense; unconsciously the mother prepares the answers for the child, and, finally, when the father reaches home the mother relates to him the story she has herself created. The child hearing this tale told takes it up in her memory and has it by heart, and when questioned whether she would recognize the house whither her assailant led her to, she points to the house of the merchant, and the history thus completed is accepted as true, until the day when it became possible to reconstitute this escapade and to demonstrate that it was nothing more than a fable—the consequences of which might have been very grave.

By chance I was enabled to collect in a short space of time four observations of this character.

November 19th a small boy, aged seven and one-half years, did not return home to his mother, and in the evening he is found at Billan Court, two policemen having fished him out of the Seine in which he came near drowning.

He stated that whilst in the street in the morning a man met him and compelled him to go along with him—he fully described this man, his appearance, his gait, his dress—after having walked a long time they reached the river, when the man without saying anything picked him up and threw him into it.

The description of the man as given by the child was so exact that the person was found with but little trouble. Despite his energetic denials the man, who was employed in a wandering Museum of Anatomy established very near the child's residence, was arrested; he, however, proved alibi. It was now that I was charged to examine the child, Albert Morin.

I learned from the mother that the child slept badly since a long time, and that he wetted his bed almost every night.

Moreover, the surroundings of the child in which he lived were such as tended to excite his imagination, and to produce in him a singular exaltation of the feeling for the wonderful. His mother sold papers; he heard the constant conversation about the wonderful and stirring occurrences; he had continually beneath his eyes pictures representing scenes of violence, etc. Added to all this there was lately established in his neighborhood a museum of anatomy; in the midst of the wax figures a man moves about, talks, etc., and one day by accident the child heard the crowd addressed: "Walk right in, you can see the head of Morin, who was killed by Madame C. H." The rest is of little

importance; Morin, that is him; the head which the man was going to show, is it his head?

Here we have the moral shock; the impression is made, the perplexity and the obsession will follow it, make it durable, and instead of the calm sleep usual to this age he is haunted by frightful dreams, they are remembered on awakening, the idea of some danger menacing him is implanted in his mind, and one day, perchance by accident, the child seized with fear flies before it and reaches the border of the Seine; at this period the vision disappeared; the fall into the river was nothing more than a trifling event. But what have we at the bottom of all this? A very interesting state of mind to study in a child who, one fine day whilst in a state of automatism analogous to that somnambulism, acts out one of his terrifying dreams. His troubled mind bore the whole cost of the adventure, the reality of which could be believed, but which is nothing else than a pathological fact, an auto-suggestion.

About the same period I had to examine a young male prisoner, who related that one night a female entered his cell and carried on most obscenely with him. The explanation was not difficult to find; the child suffered from oxyuria, and the repeated rubbing had produced an erythematous intertrigo; his sleep was troubled by dreams under the influence of which the sensation of anal pruritus was transformed into touches, and in this young imagination perverted by the workshop life, a history made up partly of nocturnal terrors and partly of obscene conversations, was related, which had all the appearance of sincere conviction.

It is by a similar process that children accuse themselves of derelictions or of crimes which they have not committed. Thus I saw a young person of seventeen arrested under the accusation of having thrown one of his youthful comrades into the river.

When brought before the Judge of Instruction he confessed and denied by turns; if interrogated in a certain way he recited a lesson learned by heart; if spoken to kindly, he stated the contrary of what he had affirmed just before; there was in his mind a confused mixture of truth and untruth which rendered it difficult to solve the problem.

The return of the child that had disappeared simplified the whole affair.

We must, therefore, from a medico-legal standpoint, be very much on our guard against the affirmations, frequently

untruthful, of children; that which occurred in Hungary a few years ago furnishes a most striking example.

A young girl disappeared without any one knowing what had become of her. Two months afterward a corpse is found in which some pretended to recognize the body of the young girl, whilst others denied this; but the religious fanaticism was aroused, and the Christians accused the Jews of having assassinated the young girl in the synagogue; a story is propagated, the day is fixed, the hour of the crime, etc. A child of thirteen years, harassed and bulldozed by the Judge of Instruction, ends by saying that her father dragged the child into his house, that she heard her cry, and saw through the keyhole the body stretched out upon the ground.

In vain the person accused proved an alibi, demonstrated the impossibility of having committed such a crime in full daylight, etc., etc., but the deposition of the child is there, and the judge who prepared her to this and who does not want to lose sight of her, sequesters his young witness up to the day of trial, where she repeats, like a lesson learnt by heart, the horrible deposition which she herself finally believed.

It is to our honor that we physicians can throw light on such delicate questions as these.

When we are dealing with children we must always remember that their intelligence is always ready to seize upon the marvelous side of things; that fictions charm them, and that they very quickly become objective; that they readily give body to the fictions evolved out of their imagination; that their instinctive curiosity, their desire for information on the one hand, and on the other the influence exercised by their surrounding, dispose them to accept without questioning whatever comes from this source. Very soon they can not distinguish between what is original with them and what has been suggested, and their memory alone entering into play they are enabled to repeat from memory a theme, which they may have retained, without any variation; but it is precisely by this monotonous repetition that the child can be judged. When the expert physician finds after several visits the same terms, the same details, and when but a word suffices to start them to relate in immutable succession the most grave facts, he may be sure that the child has not told the truth, and that, to the manifestations which he may

have witnessed or in which he may have taken part, he has unconsciously added facts acquired from elsewhere.

I have said that this state had its analogies. Professor Charcot lately brought before us a patient, a young hysterical female, who, during a period of hypnosis, was convinced that the sum of fifty francs had been placed at her disposition by one of the assistants. One day when in the waking state, she was asked how and where she had procured a certain article of toilet which she displayed with some coquetry. She responded that she had gone out on a certain afternoon to the Rue de la Paix, and that she had bought it there and paid for it twelve francs. "Oh, you have some money then," said Professor Charcot. "Certainly," she replied, "do you not recollect the fifty francs which M. X. gave me?" "Well, how much have you left?" "Some thirty francs." "Can you show it?" "Certainly, the nurse is taking care of it." In fact, the nurse had in her possession thirty-five francs belonging to the patient, and which came from an altogether different source than that assigned by the patient—it came from her family. What do we find on analysis? A suggestion passing into the domain of acquired facts, and around this suggestion a whole history grouping itself, one that appears altogether probable, but is absolutely false; the patient had not gone out of the hospital, had not gone to the Rue de la Paix, she had not bought anything, and had never had fifty francs. Facts and fiction had become mixed up in her mind, and from these a history with all the appearance of truth was formed.

To reduce this history, to discover the truth, it sufficed to know that the young woman had not left the asylum, and that the money which remained to her had been remitted to her by her family. The evidence of the nurse was sufficient.

In legal medicine if the study of troubles as complex as those recited, may arrest us for the time, if serious difficulties are to be overcome, the physician accustomed to this branch of investigations, will find in the lessons taught by clinic observation, in careful and patient observation, the necessary elements for the dignified fulfillment of his mandate, and will be able to give justice the light that it demands.—(*Un. Medic. da Can.* September.—*Abei. M. Medic.*)

Alveloz in Treatment of Cancer.

Editor MEDICAL NEWS:

Sir—I have just received the first number of the *Annals of Gynæcology*, a monthly review of obstetrics, gynæcology and abdominal surgery, published in Boston. In it is an article from the pen of Dr. Janvrin, surgeon to the New York Skin and Cancer Hospital, New York, giving his experience with "alveloz" in the treatment of cancer. He reports seven cases. In case No. 2, this eminent surgeon states that he performed supra-vaginal amputation, as he found the disease too far advanced to justify the removal of the entire uterus per vaginam. After the patient had recovered from the operation in April, alveloz was applied once a week for two months. The same course was pursued in the autumn, and at the expiration of a full year from date of the operation there seemed to be no extension of the disease. No hæmorrhage has occurred during this time; and the patient gained in health and strength.

Case No. 4. Epithelioma of cervix.—October 19, 1885, alveloz was applied every third day, and at the end of the sixth week, with the loss of a great part of the cervix, all of the diseased tissue was removed. There has been no return of the disease up to the present date. At the present time "the patient is in excellent health."

Case No. 5. Epithelioma of the right side of the nose.—"The escharotic effect of the alveloz was marked; and after the sixth or seventh application all of the diseased tissue was removed. He has remained in perfectly good health up to the present date."

Case No. 6. Epithelioma of right forehead.—Applications were made twice a week; and after six or seven weeks all the diseased tissue was removed. At the present date no return of the disease.

Case No. 7. Epithelioma of right side of vulva.—"Applications of the alveloz every second or third day from the 25th of May till the 23d of June destroyed all of the diseased tissue, and left the parts in a perfectly healthy condition." Case still under observation.

Dr. J. says: "In several other cases of epithelioma of the cervix, in which the disease was far advanced, I have used the alveloz with the effect of diminishing to a marked degree, the amount of the discharge and rendering it decidedly less offensive. In only one case (No. 6) have I noticed any effect

upon the kidneys, as mentioned by Dr. Barnsfather, of Dayton, Kentucky, in the *New York Medical Journal* of June 4, 1887. In this case, after one of the applications, the patient became somewhat collapsed, cold and nauseated, and after some eight hours passed a large quantity of urine with a decidedly offensive odor. The few cases above reported have been selected to set forth fully the effect produced by the drug. As a local application I prefer it to any other escharotic in such cases of epithelioma of the cervix as *are not far advanced and in which, for any reason, it has been decided not to extirpate either the cervix or the entire uterus.* Case No. 4 was of this character, and the exemption from recurrence of the disease for nearly two years gives hope that the good result obtained may prove permanent.

"In-cases also in which the disease is so far advanced that any other operation than curetting is contraindicated, the application of alveloz once or twice a week has proved very effective in diminishing pain (after the immediate pain produced by the application has ceased), and in decreasing the quantity and offensiveness of the discharges, thus prolonging the life of the patient, and making her presence much less objectionable, for a while at least, to those in constant attendance upon her."

Dr. Janvrin also quotes from Dr. James B. Hunter, Surgeon, Woman's Hospital, New York, in *New York Medical Record* of June 11, 1887, as follows:

"In cases of spongy, easily disintegrated cervixes, it (alveloz) has left a better surface than nitric or chromic acids, or than the actual cautery. It also seemed to him that the recurrence (of the disease) was longer delayed than after the ordinary caustics. He had confined its use to cases where the knife was not applicable, or where operation was not allowed."

For the benefit of your readers, I may state that they can obtain the genuine alveloz preparations from John T. Kirby, 16 Beaver Street, New York, as he is the United States agent. There are two preparations: one the milk in as pure a state as possible, and the other in a milder form, (prepared with vaseline) and called "Special formula." This is useful in cases of syphilis, but too mild for cancer. His prices to physicians are: Strong, \$5.00 per bottle; Special formula, \$4.50.

JAMES BARNSFATHER.

DAYTON, Ky., October 6, 1887.

Water and Its Relation to Health and Disease.

BY JULIUS A. POST, M.D., LANSING, MICH.

Read before the Michigan State Medical Society.

I HAVE examined the transactions of this Society somewhat hastily, and I have not found a single paper upon the subject which I have selected to write upon. For that reason I am led to infer that perhaps our members do not care to meddle with the water question, and prefer to transfer it bodily to the department of chemistry or consign it to the tender care of the professional sanitarian. I dare say that there is not a physician present who has not been asked to give his opinion relative to the condition of the water which some of his patrons have been using, at least a dozen times during the past season. It is a fact, that very few physicians care to know anything about those substances which are so often found in water and render it unfit for use, and most practitioners do not provide themselves with the necessary reagents, or care to spend the time to make even the most superficial examination, to determine as to the contained chemical or organic impurities. It is painfully evident to us at times that our patrons are made ill by a slow process of poisoning, and that the poisonous substances are derived from the water which they are using, but if we intimate to them that such is our suspicion, they oftentimes become angry and make unpleasant remarks regarding us and our opinion.

Notwithstanding the unpleasant situation in which we are placed, it becomes our duty, at such times, to enter an earnest protest against this slow method of suicide and murder, and if we are prepared to talk intelligently upon the subject, we can, perhaps, be the direct means of averting a more serious catastrophe.

The loss of time and the expense necessarily incurred during illness does not always fall upon those who are able to have and pay for such a luxury, and looking at the matter from a business standpoint, and remembering "that an ounce of prevention is often worth a pound of cure," I think it more profitable for the individual public to look a little more carefully to the sanitary condition of their homes and the well-being of the members of their households. Of the many blessing which a kind Providence has showered upon his people, that of water, pure water, is one of the

most important. If we recall the many sources from which it becomes contaminated and is rendered unfit for use, it is almost surprising that we do not suffer to a greater extent from its constant pollution; but if we reflect for a moment and remember the great laboratory of nature which is so constantly working in our behalf, and which was made to furnish us with all the necessities of life in a pure and healthful condition, and if we recall the intricate process by which all of these ends are brought about, we must, I think, confess that whatever there is of illness or loss of life, which is attributable to contaminated water, can be fairly and without successful controversion charged to the ignorance, carelessness or indifference of those who are to suffer the penalty of transgressing one of nature's immutable laws.

If we decompose water we find that it is composed of two elementary substances, oxygen and hydrogen, in the proportion of one part in volume of the former, to two parts of the latter; or by weight, eight parts of oxygen to one part of hydrogen. It covers about three-quarters of the globe, and exists as a fluid and as a solid. It intersects our land in every direction; is a means of navigation, furnishes power for manufacturing purposes, and a bountiful supply for man and beast. Through the agency of heat it rises into the air as a vapor, forms clouds and is condensed again, and returns to the earth as dew, rain or snow. It dissolves many substances without losing its transparency, and if it meets with soluble substances, either in the air, earth, or rocks, it dissolves them and thus forms a solution. This explains why water, when evaporated, so often yields a residue of earthly or saline substances. In the vegetable kingdom we find about four-fifths water, and in the animal world about three-fourths. It exists everywhere, and is a necessity to all living beings and organisms. It combines chemically with solids; for example, one pound of iron rust contains three ounces of water, and one pound of slacked lime four ounces, and yet both substances are dry. Substances which thus combine with water are called hydrates. Water rarely exists in a chemically pure condition outside of the laboratory. It is very difficult to get and almost impossible to keep from contamination. It contains refuse matter of all kinds from the slop and cesspool to the debris of manufacturing establishments and decaying vegetables and animal substances. The earthy salts, which are so often found in solution, are of no particular importance when

compared with the organic matter it may contain. The nearest approach to pure water is found in deep wells with rock bottom, and in streams of upland and uncultivated districts. Spring water, which is often excellent, is at times nothing but the drainage of some far-off swamp, and almost as filthy as bad well water. However, if the soil is not polluted in any way, spring water is generally good water. River water, while it may be soft, is nearly always impregnated with decaying or decayed vegetable matter, and if in thickly peopled districts is quite apt to hold in solution sewage and refuse matter, which renders it highly dangerous to life and health. It may be true that our rivers may receive the contents of sewers and thus become thoroughly and dangerously polluted, and through the influence of plant and animal life, the water may undergo a complete chemical oxidation, and in running water that has flowed ten or fifteen miles, all evidence of contamination may have disappeared; but, if it be true, it is a dangerous truth, and if we are to rely upon this statement and are foolish enough to use water which has passed through this terrible ordeal, I am afraid we shall suffer for our misplaced confidence. It is estimated that each individual requires about sixty ounces of fluids per day, and those cities which are provided with water-works furnish from fifty to one hundred gallons of water a day to each person. Of course this amount is not used by each individual, but when we come to estimate the amount of water required for domestic and other purposes, we can easily see that this is not an overestimate. Under certain atmospheric conditions the vapor in the clouds and air is condensed and particles of water drop to the earth. It may there be absorbed to appear again as springs or wells, or it may flow off to the sea through our brooks and rivers. If water which falls as rain be caught in a clean vessel, or if river water which has not passed into the earth, be examined, it will usually be found comparatively free from mineral substances, and if it readily forms a lather when mixed with soap it is said to be soft, and as such is largely used for domestic purposes. If the water has passed into the earth it is quite apt to be highly charged with mineral substances, which it has met and dissolved and holds in solution. It feels hard to the touch, and will not form a lather with soap. It is this mineral matter which will encrust the inside of a steam boiler and form flakes of whitish material in teakettles. It is hard water in every sense of

the world, and in many cases is an active factor in producing urinary calculus and gravel. In the deep valleys of Switzerland and the mountainous sections of Europe, where the soil is low and damp, and sunlight rarely enters for any length of time, the water is almost invariably highly charged with mineral matter, and the inhabitants of these valleys suffer largely from goitre and cretinism.

M. Jewells Carret, in *Progrès Médical*, says he is convinced that goitre is caused by a microbion, which lives in the soil and finds its way into the system through the drinking water. In his opinion its action is only to be feared at certain seasons of the year; but he does not tell us at what season, nor explain the origin of the microbe, or how it produces the goitre.

If water is too hard it is unfit for domestic purposes, and interferes with the cooking of meats and delicate vegetables. We determine the amount of hardness by using the standard soap solution; each degree of hardness is equivalent to that produced in a gallon of distilled water by the addition of a grain of carbonate of lime. If we boil water the hardness is diminished; the amount of hardness which passes off is called its temporary hardness, and the amount which remains is called its permanent hardness. Water is influenced largely by the nature and quality of the soil it passes through, and even rain water will absorb carbonic acid, ammonia and other salts, in its passage through the air. In fact, rain water will usually contain two or three grains of solid matter in each gallon. Carbonic acid in water enables it to dissolve mineral substances more readily, and in its passage through the soil it sometimes becomes heavily loaded with earthy salts, is unfit for use, and constitutes the mineral water which is found on sale in our stores. Water may be clear, sparkling and bright, and yet contain a large amount of impurity. It is also stated that water may furnish no deleterious substances on mechanical or microscopical examination, and still be unfit for use. Some years ago, I well remember that most of the cases of typhoid fever which occurred in our town were confined to a certain locality; it caused some unpleasant comments, and after a time the Board of Health took the matter in hand. Most of the persons who were ill used water from a well which was located at a four corners and situated directly in front of a lager beer saloon. This well was a famous watering-place for farmers and teamsters, who generally left their

teams standing near the well while they went into the saloon for their accustomed glass of lager. In this way the well received the surface washings, not only from the road, but from small cesspools of urine, manure and filth, which had accumulated near it. The well was closed, and as those who used the water were somewhat inconvenienced, they very naturally became indignant and demanded that the well should be opened or some good and sufficient reason given for its closure. Samples of the water were taken from the bottom of the well, and from the surface of the water, and submitted to a chemical and microscopical examination with almost a negative result; and with this report in hand the people again became clamorous to be allowed to use the water. To settle the matter the Board of Health determined to make a house to house inspection, as it was evident that science and hygienic laws were at variance somewhere. Taking the well as a starting-point, each house in the neighborhood was visited so far as any persons could be found who used the water. A large district was included, presenting about the same features as to drainage and sanitary conditions. The result of the inspection was as follows: There were forty families who used the water from the well at the corners; these forty families contained two hundred and nineteen persons; in these forty families there had been, during that season, twenty-three cases of typhoid fever and one case of consumption. In the district inspected there were forty-seven families who used water from wells in their own or a neighbor's yard; these forty-seven families contained two hundred and seventy-one persons; in these forty-seven families there had been during the season one case of dysentery, two of typhoid fever, one of pneumonia, one of whooping-cough, one of disease of the kidneys, and two sick for a few days, but did not call a physician. If we compare the diseases of a zymotic character in the forty families who used water from the well which was condemned, and diseases of the same nature in the forty-seven families who had water from wells better protected, we can draw but one conclusion. After closing the well there were no more cases of typhoid fever in that neighborhood than in any other part of the town. The case, to me, was an interesting and instructive one, and seemed to prove most conclusively that wherever typhoid fever makes its appearance there is a direct violation of some sanitary law, and that a chemical and microscopical examination is not, in all

cases, sufficient to warrant the opinion that water taken from certain sources may not be, of itself, the direct cause of disease. It is not strange, therefore, that nothing short of a physiological test, in the form of typhoid fever, can convince the public that water may be clear and bright, and give almost a negative result on examination, and at the same time be filthy and fatally poisonous. Water may look clear, bright and sparkle, and have a disgusting or disagreeable odor or taste, which a chemical or microscopical examination can not explain, and yet be used for domestic purposes without causing a noticeable increase of sickness.

Some years ago the water in two small lakes near my home was strongly tainted, one with the taste and odor of cucumbers, and the other had a very decided fishy taste and smell. Each of these lakes was the water supply of a neighboring town. A chemical and microscopical examination had been carefully made several times, but offered no satisfactory explanation of the matter. After a long time it was discovered that the cucumber flavor was caused by the decomposition of a species of fresh water sponge, called *spongilla fluviatilis*, that grew in large quantities along the shore of the lake. Like all sponges the *spongilla* propagates by eggs deposited near the surface of the water, and after floating about for some time they come together in large masses and attach themselves to some hard substance. The *spongilla* in its simple state is a hollow cylinder, the upper opening, or mouth, emitting the water which has entered through the pores and fed the animal. The protoplasmic matter, which surrounds these settlements of the *spongilla*, decomposes quite readily, and emits the odor and taste which is supposed to resemble cucumbers. No special epidemic made its appearance; neither was any increase of sickness noticed among the people who used the water from this lake, so we were forced to believe that the *spongilla*, with all of its bad odor and taste, was no more injurious to health than any other simple protoplasm. Regarding lake number two with its fishy-tasting water, after some time it was discovered that large numbers of fish, principally of the perch family, were dying. As this epidemic among the fish had occurred before, it was determined to investigate the matter. It was my good fortune to be one of the number of a little party who camped on the shore of the lake for some days for the purpose of studying this fish-

killing epidemic. We had been in camp but a short time when we discovered that the fish came to the surface of the water, flopped about for some time and then died. We gathered quite a number of them, and a gentleman well-versed in ichthyological lore examined them, and gave me something like the following report. The fish were changed in color and general appearance, they were less glossy than in health, were slightly bloated, and one or more peculiar looking spots or patches were noticed on each fish. In some cases the edges of the scales were slightly raised, giving the fish a rough appearance; others were covered with a thick, tenacious coating. Under the dissecting needle this coating presented a fibrous structure, just discernible to the naked eye, resembling a minute tuft of cotton, but vastly finer. Under a microscope of a hundred diameters, it was seen to consist of a tangled mass of fibers, evidently vegetable in character, and belonging to the class of parasitic plants known as fungi. This particular fungus is known as saprolegnia, and is found quite commonly on many kinds of fish and aquatic animals. Goldfish kept in an aquarium are often troubled by this fungus; they can sometimes be saved by carefully wiping it off from the surface. The fish which we examined seemed in all other respects perfectly healthy and in good condition; neither the respiratory nor digestive organs showed any signs of disease, nor were any other parasites, either animal or vegetable, observed. The trouble was apparently limited to the cutaneous surface, and it seemed that this fungus was the direct cause of the death of the fish. A gentleman who lived near the lake, and had made the fungi a special study, informed me that he had never seen this fungus growing anywhere except on the surface of aquatic animals; and in this particular case he had examined the water a great many times, both from the lake in a fresh condition and on a filter, which the water from the lake had passed through continually for forty-eight hours, and he had never found a single fibre of the fungus floating in the water or on the filter. In his opinion the disease or fungus was not due to any quality of the water. Furthermore, as this fungus was a purely aquatic parasite, and infected only such animals as had the external surface constantly bathed in water, it could not, even if the spores were introduced into the human system, find a congenial lodging-place. There were at least five thousand people who used the water from the lake continu-

ally during this time, and I did not learn of a single case of sickness directly traceable to using the water. Impure water, in passing through the soil, as a natural filter, may have the impurity removed, or it may remain in the same condition, or it may undergo oxidation and be changed into other substances. The sources of organic impurity are two, animal and vegetable, of which the former is far the more dangerous. Water obtained from streams which pass through swamps, or from wells in low, swampy ground, is sometimes deeply tainted by, and may contain, a great quantity of vegetable matter. Although the use of such water is not advisable without thorough filtration, yet it is far preferable to the clear, sparkling water from a well which is contaminated by sewage. Vegetable matter, while it may disturb the stomach and bowels unpleasantly, is not followed by the fatality which attends sewage poisoning. During seasons of abundant rain, with springs well supplied with flowing water and wells comfortably filled, poisonous substances of all kinds are largely diluted, and are not so deleterious as in seasons of drouth and low water, when whatever there is of poisonous substances in the water becomes more concentrated, and in proportion to its concentration, more dangerous to life and health. During the past season we have been blessed with an abundant water supply, and as a result typhoid fever has not been very common, but during the fall and early winter of 1881, with low water and protracted drouth, typhoid fever prevailed very largely. It has been stated as a fact that water in freezing expels all foreign substances, and in winter, with the springs and wells frozen over, the deleterious matter is more concentrated and more dangerous to health than at other seasons of the year. My own experience in this direction, that of freezing expelling foreign substances, was as follows: A gentleman engaged in the ice trade had filled his ice-houses with ice taken from a dam in a stream which passed through the village. When he began to use the ice the following summer, it was noticed that it gave the water a bad taste and smell. In a country town this was sufficient to set the tongues of the villagers wagging furiously, and it promised to ruin the man financially. He employed me to examine the ice and ice-houses, which I did; but remembering "that a prophet is not without honor save in his own country," I suggested that the Board of Health was the proper authority, and that they employ a well-known expert

in water analysis to make a further examination. They acted on my suggestion, and the gentleman reported that the ice was pure and contained nothing in any way injurious to health, and that the taste and odor did not depend upon any impurity in the ice, but upon the packing. I did not notice any increase in the amount of illness in town, and as the people used the ice during the entire season, I was inclined to think that the verdict of the ice examiner was correct. For some years past the ice question has been a very important one, and the ice trade has become one of the great industries of this country. Aside from the ice used for drinking purposes, a large amount is required for packing meats, vegetables and other articles of diet, and for manufacturing purposes. Quite a number of outbreaks of disease have been directly traceable to impure ice, and the idea that ice purifies itself by freezing or crystallization, has long since given place to the stubborn fact that ice may contain impure matter in greater or less proportion, according to the impurity of the water, the rapidity with which the ice is formed, and the location of the ice formation; that is, whether the water from which the ice is formed is stagnant or flowing; whether it is taken from the surface of the water, or whether the water was frozen to the bottom of the pond or stream, and thereby included all foreign substances. That ice will purify itself to a great extent by repeated freezing and melting is quite generally acknowledged, but it is a fact that ice is often responsible for, and the direct cause of, much sickness, where the purity of the ice used is not questioned, and it thereby escapes unsuspected. Water which contains sewage or any organic impurity would certainly be set aside as dangerous to health, and ice formed from water which contains any organic impurity is quite as dangerous as the water from which it is formed.

The surface of the ground is somewhat low in Central Michigan, and the soil of a nature which readily admits of thorough saturation, not only with soil water, but with sewage and refuse matter. A gentleman well posted in sanitary matters recently told me that slop water, privy drainage, sewage or any offensive liquid substances thrown upon the ground within one hundred and fifty feet of a well twenty feet deep would contaminate the water in the well, and render it unfit for use inside of twenty-four hours. If this be true, how important it is that no slops, refuse matter, privy drainage or, in fact, any foul substances be allowed

within a long distance of any well which is to furnish water for domestic purposes. In a clay soil no substance which can by any possibility contaminate the water should be permitted within one hundred feet of any well; water which enters a well near the surface will, of necessity, be contaminated by it, and if placed at a long distance from the well there is no positive assurance that the water, though it may enter the well at, or near, the bottom, may not contain the poisonous substances in some other than their original form. It is said "that a well drains an inverted cone of soil, the apex of which is the bottom of the well." I question the truth of this statement somewhat, if we are to understand that the drainage is confined to this space. It is now quite conclusively proven that polluted water used by dairymen to cleanse pails, pans or other utensils used about the dairy-house or in carrying milk to customers, or to dilute the milk, or as drink for cows, is often a prolific source of disease. Some time since I was deeply interested in some experiments relative to cows drinking stagnant or filthy water, which is so often found in country cow-pastures, or being fed on distillery slops and refuse substances from malt-houses. If I remember correctly, the milk from cows used in these experiments, in almost every instance, was unfit for use, and found to contain bacteria-like substance presumably obtained from the water.

Water being a powerful solvent, if kept in tanks lined with lead, will evaporate and be condensed on the sides of the tank. This deposit is largely carbonic acid and will dissolve the lead. In this way people who drink the water get lead palsy. Tin and zinc will be affected in a measure by water, but not to such an extent as lead. Soda fountains with lead pipes are quite apt to deal out poisonous soda water, the carbonic acid taking up the lead in its passage through the pipe. In testing water for sanitary purposes it is usual to make the test at any time it is required; but if the examination is made for the purpose of ascertaining the amount of mineral matter it may contain, or any other of its natural constituents, it is hardly fair to make the test during freezing weather or during a dry season. It is better to choose moderately cool weather and a season with a fair water supply, as giving the best average result. When a case of typhoid fever occurs in a neighborhood it is generally thought to be the *avant-coureur* of more trouble to come, and we begin at once to inquire as to its cause. It is the

belief of the medical profession at the present time, that polluted water and miasmata emanating from sewers, privies and cesspools, is largely responsible for, or the direct cause of, typhoid fever. That being the case, we are intensely interested in anything that will in any way assist us in giving a satisfactory explanation of the cause and origin of water pollution, and of the immediate or remote effect of this pollution upon the health of those who drink the water. There are a few tests which we should be able to apply at any time, and if we thoroughly understand the nature and import of them, we can very often be instrumental in protecting our patrons from the bad effect of contaminated water; and it will be a great satisfaction to us to know whether the water we are using is our enemy or friend.

Color. Pure water should be colorless; free from all turbidity and suspended matter. Fill a large white or colorless glass bottle with the water, and look through it at a dark background. Organic matter, more particularly vegetable, imparts a tinge of yellow or green, or gives it a bluish cast. Clay and other harmless impurities impart a brownish or whitish color.

Water which flows over or filters through a soil which contains mineral matter, is usually turbid and somewhat discolored. Water which filters or passes over a blue clay soil or bog lands, usually has a brownish color, sometimes due to soluble iron in the water, or more likely in the latter case to decayed organic matter. If very turbid or dark it is quite likely to be due to vegetable matter, and should be carefully filtered before using.

Taste. Pure, fresh water should be perfectly tasteless, whether cold or warm. A bad taste under any circumstances should excite our suspicion that the water is unfit for use.

Odor. Partially fill a wide-mouthed bottle with the water, then smell of it; cork the bottle carefully and set it in a warm place for a few hours, then shake it and smell of it again. If it has any repulsive odor it should be rejected at once. Warming the water and adding a little liquor potassæ will often render the odor more distinct. If the liquor potassæ produces any precipitate it is an indication of hardness.

Organic matter may be either animal or vegetable. It may be decomposed or not decomposed; if not decomposed it may retain the form that it existed in in the organism, or it may be changed into some other more complex substance.

If decomposed it may exhibit any of the products of decomposition; it may be harmless in its effects, or it may be dangerous to health. If the organic matter be of animal origin, the compounds of nitrogen will be found as positive evidence of this contamination, and will exert the greatest influence in causing the water to be unfit for use. The presence of ammonia or albuminoid substances does not of necessity render it unfit for use, or even prove the presence of recent organic material. The tests which I have employed are well known and the common property of the profession; they are simple, easily made, and do not require any delicate manipulation; they commend themselves in every way to the hard-worked medical man, and give him a vast amount of information in return for a little trouble.

Organic matter. Heisch's sugar test is of no special chemical value, but it is convenient and any person can try it. To a small bottle of the water add a few grains of sugar, stopper tightly and set in the sunlight. If any cloudiness appears, even after some days, it is positive evidence of contamination.

Organic matter. If a quantity of water be evaporated to dryness in a clean porcelain vessel, and then gently heated, the blackening of the residue will indicate the organic compounds, which will entirely disappear by a further application of heat. If, during the exposure to heat, there is rapid combustion or deflagration, it indicates the presence of nitrates. If there is but little organic contamination the residue will be nearly white; if more, it will turn brown; and if more highly polluted the residue will be nearly black. Peaty matter will give a darker residue than animal matter, or sewage. The odor of burning peaty matter is also vastly different from that of animal matter. A rough approximation of the amount of organic matter can be obtained by weighing the residue when dry and after it has been burned.


Organic matter. Another simple plan for testing for organic impurities is to make a solution as follows: Permanganate of potassium eight grains, distilled water one fluid ounce. Put a half pint of the suspected water into a glass and add one drop of this red solution; if the red tint disappears from the water in half an hour, add more of the solution. For every drop that loses its color in the half pint of water, there will be found to be from one and a half to two grains of putrid organic matter in each gallon.

Organic matter. The permanganate of potash test is one

of the oldest and best tests that we can employ, and as now modified and improved is quite reliable. It is based upon the fact that any substance easily oxidized, especially organic matter, will discharge the color of the solution. The formula is as follows: Permanganate of Potash, one part by weight; caustic potash, four parts by weight; distilled water, 160 parts by weight. Nearly fill a colorless glass or test tube with distilled water, and add enough of the reagent to give a distinct pink color after stirring. To an equal quantity of the water to be tested add the same quantity of the reagent; set the two glasses side by side on white paper and note the difference, if any, in tint. In the absence of sulphuretted hydrogen and iron and the nitrites, if the water be rapidly discolored, the presence of animal matter is indicated; if slowly discolored, vegetable matter is present.

In the decay of organic matter, ammonia and the nitrites and nitrates are formed. Their presence is a positive evidence that decay is now, or has been, going on. Though harmless in themselves, they are evidence of pollution.

Ammonia. Nessler's reagent of the following formula is the test now largely in use: Iodide of potassium, two drachms, distilled water, one fluid ounce. To this solution add gradually a saturated solution of bichloride of mercury until the red precipitate produced ceases to re-dissolve; add one-half ounce of caustic soda dissolved in water to make four fluid ounces; let stand and decant into a glass stopper bottle. Fill a test tube nearly full of the water to be examined, and add a few drops of the reagent. A yellow or brown color, or a brownish precipitate, indicates ammoniacal salts. A curdy, white precipitate indicates that the water is hard. If the coloration is well marked it is positive evidence of contamination, but if a colored precipitate appear it is enough to condemn the water at once; it is an indication of animal pollution, especially from sewage, and in springs and shallow wells shows that the contamination is of recent occurrence.

 *Ammonia*, by exposure to the air and percolation through the earth, in water, is converted into nitrates and nitrites. The presence of these substances is therefore, in the absence of ammonia, an indication of remote pollution and direct evidence that the water is undergoing purification by process of natural filtration.

Nitrates. A convenient and excellent test for the nitrates is: To a test tube nearly full of the water add a small crystal

of sulphate of copper, and shake until the copper is partly dissolved; then, holding the test tube inclined at an angle of forty-five degrees, pour carefully down the side a few drops of strong sulphuric acid; a purplish or brown color around the crystal of copper indicates the presence of nitrates.


Nitrites. The iodide of potassium solution is the reagent in common use, and is made as follows; Iodide of potassium, five grains; distilled water, one fluid ounce; acetic acid, five minims. Before using, add a few drops of fresh starch paste. Iodide of potassium often contains iodate; in that case the starch will produce a blue color at once, and the reagent must be made new from a fresh sample of the iodide.

To a test tube of the water to be examined add two or three drops of the reagent. If nitrites are present a blue tint will appear. The presence of nitrites in springs or deep wells is without significance, but in shallow wells or in river water it shows a probable recent contamination with sewage, and that the water is unfit for use.

Chlorine. No single indication is of so great sanitary importance in judging of the purity or impurity, and consequently of the safety or danger of using any water. How a substance which in itself is not only harmless, but by most people considered indispensable as an article of diet, becomes to the sanitarian a signal of danger in water, will be easily rendered apparent. No mineral substance is, perhaps, so universally diffused as common salt. It exists in the air, hence in all rain water; in all soils, hence in all well and spring water, though often in quantities too minute to be weighed by the most delicate balance.

Salt, being remarkably soluble, is constantly being washed out of the soil into the streams, and ultimately carried down to the great reservoir, the ocean. We may, therefore, expect to find it present in all ordinary well water. What might fairly be considered as an average for uncontaminated well water can only be estimated, but it certainly can not be large. Whenever in well water it rises above a few grains per gallon, it becomes certain that it comes from other sources than the soil. What is that source? A moment's reflection will convince any one that nearly all the salt used for domestic purposes escapes by one of two channels—either the water closet or the house drain. Therefore we should expect, what is always found on examination to be true, that whatever sewage may not contain, it always contains salt. If sewage finds its way to a well through a

porous soil, or through crevices in the rocks, it inevitably brings its salt with it. So indescribable a compound as sewage can not be directly estimated, but its invariable constituent, salt, does admit of exact determination. Whenever the proportion of salt in well water rises above a few grains per gallon, contamination by sewage or house drainage can be confidently asserted; and when salt is found to the extent of four or five grains per gallon, or upward, the danger is imminent and it becomes the duty of the physician to prevent the further use of water from such wells. Witness the fact that all through the length and breadth of our land, epidemics of typhoid fever are constantly occurring, and while it may perhaps spare the extremes of life, it claims the young and the vigorous as its special victims. Nearly every outbreak of typhoid fever can be traced directly to its specific cause; and that cause is the special poison which exists in polluted water. Apropos of the subject of contaminated water, the *Lancet* of Oct. 21st, 1882, informs us that a recent analysis of the water from the holy well at Mecca, which is so eagerly drunk by pilgrims, shows this water to be sewage, about ten times stronger than the average London sewage. This reminds us of the facetious boarder who remarked regarding a certain dietary compound, "that there was not quite enough hair in it for good plaster, but a little too much for hash."

 **Chlorine.** In testing for chlorine, the reagent is a standard solution of nitrate of silver. Formula: Nitrate of silver, fused, twenty-four grains; or nitrate of silver, crystals, twenty-five grains; distilled water, eight fluid ounces.

This should be prepared with the greatest possible care and accuracy. No milkeness or opalescence should appear when the nitrate of silver is added to the water. No sediment should appear on standing. One drachm of this reagent will precipitate .078 grain of chlorine, or the amount in two ounces of water if it contains five grains of chlorine per wine gallon.

Fill a test tube partly full of the water to be examined, and render it strongly acid with pure nitric acid, add a few drops of the nitrate of silver reagent, and if chlorine be present a white precipitate will be formed, or, to exactly two ounces of the water to be examined, add two or three drops of a solution of bicromate of potash, which has been made yellow by ammonia; then add the reagent, drop by drop, constantly stirring the water; each drop as it falls

forms a red spot which disappears. Continue this until a permanent red tint is imparted to the water; the process is then completed. If 30 minims of the reagent have been used, the water contains 2.5 grains to the wine gallon, or nearly 4.5 parts in a 100,000, and is suspicious. If a drachm has been used, the water contains five grains of chlorine per gallon, and it should be unhesitatingly condemned.

Iron. To half a pint of the water add a very little solution of yellow prussiate of potash; it will turn the water a very dark color or give a dark precipitate if iron be present. The sulpho-cyanide of potash may be taken as a test, and if iron be present it will turn the water a blood-red color.

Carbonic Acid. This gas is present in all well and spring water, and with the air also held in solution gives it a live sparkling taste, as distinguished from dead, stagnant, or boiled water. A little lime-water will produce milkiness in water charged with carbonic acid; and conversely, carbonic acid gas passed through water holding lime in solution, will give it a whitish color—carbonate of lime.

Lead. Heat the water, acidulate with muriatic acid, and pass sulphuretted hydrogen gas through it for several hours; a brownish precipitate indicates lead. Sulphide of ammonia is also a simple test for both lead and copper.

To Disinfect Impure Water. Boil thoroughly or use a weak solution of permanganate of potash. It is contended by some that recently calcined charcoal, well pulverized, is the only substance which can, with impunity, be mingled with water in excess without communicating taste or hurtful properties. It is usually placed in layers between clean gravel through which the water is filtered. The charcoal should be renewed occasionally, as it becomes inert when saturated. If water be boiled to deprive it of infectious germs or bad odor, it should be exposed to the air for a time to absorb again a portion of oxygen and carbonic acid. It is said that a very small per cent. of salicylic acid will keep water in casks or tanks fresh and sweet for weeks.

Conclusions. If Nessler's solution gives a coloration but no precipitate, and if nitrates, nitrites, and chlorides are absent the water is soft and fit for use. The ammonia is probably of vegetable origin.

If Nessler's solution gives a large precipitate without color, chlorides are in excess, and nitrates, nitrites and organic matter absent, the water is hard but fit for use.

If ammonia nitrites and chlorides are present the water is unfit for use.

If nitrates and nitrites are present and ammonia and chlorides absent, the water is fit for use.

If nitrites and chlorides are both present, in excess, the water should be regarded as very suspicious, even though ammonia be absent.

If chlorine be present to the extent of two or three grains per gallon, or upward, the water is unfit for use.

I know of no subject more deserving of careful, painstaking attention than that of water and its relation to health and disease, and I am glad of the opportunity to record something of my own experience, together with many practical facts and much valuable material of special interest to us, as physicians and sanitarians, which I have gathered from other sources. As an apology for not referring to the examination of water by the microscope, I beg to say, that at no very distant day, I shall hope to present to this Society a paper on the "Microscopical Examination of Water," a subject to which I have given some attention; and when I have investigated the waters of Central Michigan more fully, if I find material proper to be brought before a society of medical men, I shall ask you to bear with me, while I tell you of the substances which I have found and the relations which they bear to health and disease.

Selections.

Papers Read before the International Medical Congress.

WE are indebted to the *St. Louis Medical and Surgical Journal* for the following account of papers read before the INTERNATIONAL MEDICAL CONGRESS. The *Journal* acknowledges its indebtedness to the *Medical Record*, of New York, for affording it the means to prepare the reports. Our quotations embrace paragraphs taken from only a few of the *Journal's* departments of medicine and surgery.—EDITOR MEDICAL NEWS.

Influence of Weather Changes on the Human Organism.—Dr. E. S. Chisholm, of Tuscaloosa, Ala., after carefully noting the influence exerted by temperature, humidity and

electricity, concludes that by far the greatest power over the human organism is exerted by atmospheric pressure. In support of this theory he submits two arguments. The normal atmospheric weight on man is 14.7 pounds to the square inch at the sea level. The body is sustained by an equal power of resistance, wisely provided. If the pressure be less, the surface of the body will be distended, and the superficial circulation is less restrained. This change can be brought about by exposure to great altitude, as well as by natural physical causes, when the circulation will be disturbed just the same. Any undue pressure on a portion of the body may then be felt. May not this disturbance of tension on soft tissues which are fixed to the bony framework of man, or where disease has a seat in periosteal and ligamentous attachments, be liable to greater inflammations? Or when a nerve of a tooth, which in a state of health is inclosed in a bony chamber (which has no expansive liberties, nor needs them as long as health continues), becomes exposed through a small aperture? When the normal atmospheric balance is lowered, the nerve has a tendency to be drawn through the aperture and takes on inflammation, probably followed by congestion and complete devitalization. A report from the Pennsylvania Hospital, some years ago, on the observation of barometric pressure in surgical operations, shows that in 259 operations the barometer was ascending in 102, descending in 123, and standing in thirty-four. Fifty-four of the whole number were fatal, eleven having been operated on with barometer ascending, twenty-five when descending, and eight when standing.

The Anatomical Origin of Ovarian Cysts.—At the séance of July 6th of the Société de Chirurgie, M. Terillon made several statements concerning the origin of ovarian cysts that are quite at variance with the ideas hitherto obtaining on certain points. Basing his opinion upon numerous observations in his own practice, he asserts that ovarian and parovarian cysts are of identical anatomical origin. Again he says that parovarian cystic tumors invariably return after puncture, an assertion entirely contrary to the opinions of Duplay and Panas. He asserts, also, that all ovarian cysts have their origin in the supernumerary ovaries and not in the organ of Rosenmueller. In this, however, he is in accord with Malasses and Sinéty. In the discussion which followed the announcement of these views, M. Quénu called attention to the clinical differences between ovarian and par-

ovarian cysts, and said that the same course of reasoning that gave them the same etiology might with propriety include dermoid cysts, which of course no one was prepared to admit. In his (Quénu's) opinion these different cysts have only one point in common, and that is they spring from peritoneal epithelioma. In answer to this M. Terillon said he had seen multilocular cysts with little dermoid cysts sandwiched between the cystic tumors, and evidently such a dermoid cyst was developed at the expense of the ovary.

Camp Dysentery.—Dr. Chas. W. Buvinger, of Pittsburg, says that this disease, as also camp diarrhœa, is due to a radical change in the manner of living, the use of bad water from stagnant pools or wells contaminated with organic matters, the improperly cooked food and privations being important factors. Other factors were malaria and scurvy. He scouts the idea, now so prevalent, of micro-organisms as etiological factors. As to its treatment, no one remedy can always be relied upon, but he is convinced that fuming nitric acid of 43° B., as furnished by Powers & Weightman, is the best that we have. His favorite formula is as follows:

Ry.	Acid nitrosi, 43°,	.	.	.	f 3j
	Tinct. opii,	.	.	.	f 3ij
	Aquæ destil.,	.	.	.	f 3vj
	Syr. simpl.,	.	.	.	ad f 3viiij.

M. Sig.—A tablespoonful in one wineglassful of water every three hours.

Phthisis.—Concerning the etiology of phthisis, Dr. Phillips, of Edinburgh, claims that experiments (his own and those of others) go to show that when ptomaines have been injected into animals all the characteristic symptoms of the disease follow. The author further claims that atropine counteracts the specific action of ptomaines. In the discussion which followed, Dr. Herrick, of Cleveland, took sides with Dr. Phillips, while Dr. Arnold, the President of the section, took issue with him. The latter stated that Koch's experiments yet stood a monument of completeness, and that when Koch's bacillus was injected, even after it had passed through many generations of pure culture, it produced phthisis, and did this invariably.

Condition of the Fœtal Blood.—Krueger has examined the blood of ten newly-born children, the specimens being taken from the umbilical vein after the ligation of the cord and at the commencement of the first respiratory movement. He

investigated the quantity of iron, the dry residuum and of the fibrin at the time of coagulation. He found that the dry residuum was greater than that of the pregnant woman (21.069 in the foetus at term to 17.84 in the woman), while the proportion of fibrin, on the contrary, was smaller (0.1209 to 0.3820). In spite of this deficiency of fibrin in the blood of the foetus at the moment of birth, the tendency to coagulation is much greater in the infantile blood than in that of the mother. Foetal blood commences to coagulate in forty-five seconds and is complete in eighteen minutes and one second, while the normal period of coagulation of adult human blood is two minutes and fifty seconds.

Histology and Pathology of Reproduction.—Dr. H. O. Marcy, of Boston, read an elaborate paper on this subject before the Section of Obstetrics and Gynæcology. He endeavored to show that immediately after conception a destructive process affects the inner surface of the uterus; in some animals and in women this process is limited to the epithelium, while in other animals, as in the rodents, the destruction extends to the entire submucous connective tissue layer. This destruction is essential, since it facilitates the setting up of neoformative changes, from which will result the maternal portion of the placenta. This process consists in the formation of new vessels, which are distinguished from the vessels of the unimpregnated uterus in that both the artery and vein consist of only a simple endothelial wall, and that from the external surface of this is elaborated a layer of special cells not separable from the wall of the vessel. These are the so-called decidual or placental cells. The relation established between these two factors of new formation is what is known as placental development. The manner in which this relation is established gives rise to the different forms of the mammalian placenta.

The Nutrition of Infants.—Prof. Albert R. Leeds, of the Stevens Institute of Technology, says, on this subject, that he had undertaken to find a true basis for the preparation of artificial food by analyzing eighty samples of human milk. He found that human milk differs from cow's milk chiefly in the proportion and digestibility of the caseine, which is smaller in quantity and more easily digested in human than cow's milk. He believed that he had solved the problem by digesting the caseine by a peptogenic powder, easily obtainable and of constant strength, which, with the aid of heat, reduced the casein in five minutes.

Before this cooking, the milk had been first diluted with water in order to lessen the proportion of caseine, and then had been enriched by the addition of cream to restore the normal proportion of fat. The results of a very large number of trials, followed by careful observation, encouraged the belief that by this process the artificial feeding of infants had nearly reached perfection.

Conservative Obstetrics.—Dr. Rodney Glissan, of Portland, Oregon, said that the expectant method of treating retained secundines after abortion and the placenta after labor was unsafe in private practice, especially when the doctor resided at a distance from his patient, yet it might succeed fairly well in hospitals under the constant vigilance of experienced practitioners. He approves of the immediate removal of the secundines after abortion in all cases where the cervix is somewhat dilated or dilatable, as is generally the case for an hour or so after the expulsion of the embryo, and in all cases of septicæmia or dangerous hæmorrhage, no matter when they occur. When neither of these accidents is present, and the cervix closed, he does not advocate the immediate and forcible removal of the secundines, but would wait a more favorable condition, when the finger could be easily inserted, moderate hæmorrhage being controlled by ergot, the tampon, etc. No instrument in these cases was so safe, trustworthy and generally useful as the finger. He adopts the bimanual method, depressing the uterus with one hand to within reach of the finger of the other, giving an anæsthetic if necessary. In the removal of the placenta during labor the author used the Crédé method, supplemented by moderate traction on the cord. He does not believe that moderate traction on the cord, when the uterus is well contracted and properly grasped by one hand externally, is attended by the least risk of inversion, or of increasing the hæmorrhage by a suction-like process of the placenta on the cavity of the womb. He thinks that traction upon the umbilical cord as an aid to delivery of the placenta ought not to be abandoned. Dr. Graily Hewitt accorded perfectly with Dr. Glissan. In cases of abortion there was often great difficulty in passing the internal os. We must not expect the os to be open until the abortion had continued for some time. Instruments other than the finger were dangerous. He was much impressed with the importance of not allowing the secundines to remain long in the uterus. Others present expressed the same views.

Treatment of Puerperal Eclampsia.—Dr. E. H. Gregory, of St. Louis, read a paper with this title. He recommends in all cases where convulsions occur before labor to produce anæsthesia, clear the bowels and rectum, and so proceed with delivery as rapidly as possible. When they came on after delivery he knew of nothing so safe, sure and speedy in its action as veratrum viride, given in doses of six minims by the mouth or ten minims by the rectum, repeated every fifteen minutes until convulsions cease. Should the remedy cause depression to an excessive or dangerous degree, alcohol is a certain antidote. In his opinion it is better to risk the effects of excessive doses of veratrum under these circumstances than to trifle with the convulsions. The paper caused considerable discussion in a general way, but was accepted as one of the most valuable contributions to that section of the Congress. This is, however, only in accordance with what we know of Dr. Gregory and all that he says and does.

Abdominal Surgery.—Dr. Chas. T. Parkes, of Chicago, read a paper in which he considered the subject of gun-shot wounds of the abdomen. While the diagnosis, with the abdomen unopened, was at best uncertain, he thought that certain indications should be taken into consideration before opening the abdomen.

Dr. N. Senn, of Milwaukee, read a very interesting paper detailing experiments in intestinal surgery, with special reference to the treatment of intestinal obstruction. He spoke of stenosis due to partial enterotomy and longitudinal suturing of the wound, as also circular constriction due to obstruction of the venous circulation. He spoke of flexion produced by partial enterectomy and transverse suturing of wound and that caused by inflammatory and other extensive causes, volvulus, invagination, enterectomy, circular enterorrhaphy, etc., and concluded by relating his adhesion experiments.

Dr. Jno. Homans, of Boston, read a paper on three hundred and eighty-four laparotomies of various diseases. The greatest number of consecutive recoveries he had was thirty-eight.

Dr. Addinell Hewson, of Philadelphia, had his paper read by the Secretary. He claimed that the main point in laparotomy was the closing of the abdominal wound without sutures. He was not partial to wet dressings.

Dr. J. N. Matthews, of Louisville, read a paper on

"When is Colotomy Justifiable?" He did not consider it justifiable in cancerous disease of the rectum, when located three inches from the anus: nor in stricture beyond the reach of the finger, nor in aneurism, nor in cases of specific origin. In the most of these operations life was not prolonged.

Dr. Donald Maclean, of Detroit, reported three cases of kidney disease, the first being a woman of twenty-one. Laparotomy was performed and a good result secured. In the second, a woman of forty, the same result was obtained. In the third, a child twenty-two months old, the patient died.

Dr. B. A. Watson, of Jersey City, spoke of the primary treatment of gun-shot wounds. He advocated compression for hæmorrhage, and called attention to the importance of removing all foreign bodies from wounds and their occlusion by means of aseptic bandages and compresses.

Dr. L. Von Farkas, of Budapesth, read a paper giving the statistics of the results of antiseptic treatment of wounds, which were very favorable to the method.

Dr. Eli A. Wood, of Pittsburg, read a paper in which he advocated the importance of the government securing and preserving vital statistics in the army and navy for the benefit of subsequent applicants for pensions.

Dr. D. S. Lamb, of Washington, read a paper in which he urged the importance of international regulations for the medical treatment of prisoners of war, whereby they should be treated as human beings and not as criminals, and should receive all the attentions their condition required.

Dr. Richardson, of Boston, read a paper on gastrotomy for foreign bodies in the throat. He thought that gastrotomy would not be necessary should the foreign body be properly located, but it is difficult to find the location of the cricoid cartilage and the cardiac opening. In sixty cases in which he had operated he found the average distance from the incisors to the cardiac opening fourteen and one-half inches; the longest seventeen, and the shortest ten and one-half inches.

Dr. F. S. Dennis, of New York, read a paper on amputation at the hip-joint for sarcoma. Out of twenty-eight cases of sarcoma of the thigh, but two were living. He regarded this operation as better than amputation at the upper third.

Dr. Garmody, of New York, read a paper on the surgical treatment of traumatic insanity by means of the trephine.

He reported a case of a young woman struck on the head with a brick. After trephining, a space three and one-half by two inches was left. In twenty-one days she was rational and the wound healed by first intention.

Dr. Manley, of New York, read a paper on a case of gun-shot wound of the large intestine, with a successful result by laparotomy. The patient was operated on twice. He thought that the operation was liable to more risks in a man than in a woman because, in the former, respiration is abdominal. The incision should be made as small as possible to avoid future ventral hernia occasioned by laborious work.

Dr. Robt. Newman, of New York, read a paper on the use of the galvano-cautery sound, particularly in hypertrophy of the prostate gland. He claimed that there is no hæmorrhage, the healing is more rapid, and there is no septicæmia.

General Sessions of the International Medical Congress.

WASHINGTON, September 10, 1887.

Editors New Orleans Medical and Surgical Journal:

Gentlemen:—When the Ninth International Medical Congress assembled in Washington, at Albaugh's Opera House, on the morning of the 5th of September, your correspondent beheld the most distinguished looking body of men ever convened on the continent. Most men look their calling in life—doctors in medicine especially—and it was evident that the Congress was composed of members united in a common purpose, though they had come from the ends of the earth. Russians, Syrians, Roumanians, Egyptians, Japanese, Chinese, Spanish, French, Germans, Italians, Mexicans, British, Americans, all sat together as happy as if they were holding a family reunion, but in conversation a little embarrassed, for the foolishness of their ancestors at Babel.

President Cleveland formally opened the Congress and Secretary Bayard delivered the address of welcome, which certainly was a masterpiece of composition, scholarly and appropriate. Here is one of his happy thoughts, which received a hearty response. He spoke of a better acquaintance among the nations, of the progress of social assimilation, of the federalizing into great empires of small kingdoms and provinces, of the silent influences of litera.

ture in forming closer bonds of union, and of that spirit of common brotherhood which breaks down the barriers of mountain and sea, and predicted that in the years to come the word '*stranger*' would be obliterated from the vocabulary of civilization.

The address of the President of the Congress was well received, and much respect was accorded to this venerable officer, whose reminiscences embrace such a long period of American medical history.

On the second day of the general sessions, Professor Austin Flint read in faultless style a very able paper on "Fever; Its Cause, Mechanism and Rational Treatment," from which we extract the points of most striking interest. One of the purposes of the paper, made very manifest by frequent allusion to it, was to show the production of water in the body as the result of union of oxygen and hydrogen. He made the point that more water is excreted than taken into the body; in one of the experiments on his own person the amount of water discharged exceeding that introduced by 46 ounces; in another experiment the excess of elimination being 2.78 ounces. The excess of water the writer regarded as the product of oxidation in the organism, and suggested the idea of its excrementitious character. In fever, the formation of water is diminished, and less is excreted, while urea and carbonic acid are increased in quantity. The following are some of the writer's conclusions:

1. It is probable that the original cause of most essential fevers is a micro-organism.

2. Defining fever as an abnormal elevation of the general temperature of the body, the pyrexia is due to the following modifications in the normal heat-producing processes: (a) Oxidation of certain constituents is exaggerated independently of increased muscular work, without corresponding increase in the appropriation of nutritive material; (b) the part which the production of water in the body plays in the production of heat is either suppressed or is greatly diminished in prominence, together with the equalizing action of cutaneous transpiration.

3. Fever produces abnormal consumption of fat, with parenchymatous degeneration, for the following reasons: (a) The fat is consumed because it feeds the pyrexia more readily than do the other tissues of the body, and its consumption is the most important source of carbonic acid; (b) parenchymatous degenerations of the muscular tissue and

of the solid organs occur chiefly because the abnormal transformations of these parts, which result in an excess of urea, and which probably also contribute to the excess of carbonic acid, are not compensated by the appropriation of nutritive material from the blood; (c) it is well known that patients with unusual adipose or muscular development are likely to present more intense pyrexia in fevers than those whose adipose and muscular development is smaller.

Finally, an essential fever is an excessive production of heat in the body, induced by a special morbid agent or agents, and due to excessive oxidation, with destruction of the tissues of the body, and either a suppression or a considerable diminution in the production of water.

Under the head of "Rational Treatment of Fevers," Prof. Flint pointed out the therapeutical indications and classed them as follows:

1. Reduction of the general temperature by the external application of cold.
2. Same by the use of anti-pyretics.
3. Promotion of general nutrition by alimentation.
4. Measures to supply to the system matters which can be consumed in the excessive production of heat, thereby retarding destruction of tissue.

The writer explained the disturbances of the nervous system in fevers as secondary to the pyrexia, and varying in intensity in proportion to the height of temperature. A simple reduction of the temperature, however obtained, is nearly always attended with amelioration of the nervous symptoms and a reduction of the pulse-rate. Hence, the inestimable value of antipyrin and antifebrine as simple anti-pyretics. They usually relieve all symptoms dependent upon high temperature.

Under the head of "Alimentation in Fever," Prof. Flint advises the use of so much food as can be readily digested and assimilated, in order to make up the waste and to retard the destruction of tissue. He urged that hydrocarbons and fats introduced must contribute to the formation of heat, and thus retard parenchymatous degenerations. Too little attention, he says, has been given to the administration of food that has a high food value, such as fatty and farinaceous articles.

The writer spoke praisingly of the use of alcohol in fevers, to an extent always short of intoxication. Alcohol requires no digestion, is quickly absorbed, and is either oxi-

dized or eliminated by emunctory organs. It is oxidized more readily in fevers than in health. Alcohol is tolerated well in fevers and in phthisis pulmonalis. Theoretically, by the author's reasoning, we can see how alcohol may supply heat or supply the waste of tissue in fevers. So much for Prof. Flint's opinion of fevers and their treatment.

All physicians understand the necessity of feeding patients with the view of supplying nutritive material to tissues, which are being wasted by pyrexia; but the idea of feeding the fever, as if it were some hungry thing, rather than allow it to devour the tissues, is a rather startling proposition. Again, the use of alcohol in asthenic forms of fever has long been recognized; but Prof. F.'s laudation of alcohol as an article to which the fever takes very readily is well calculated to lead physicians into error in the treatment of asthenic forms of fever. The paper under discussion attempts a physiological explanation of the processes of pyrexia, and upon the conclusions reached, bases what the author terms the rational treatment of fever. When published it surely will command professional attention.

The paper of Prof. Semmola, of Italy, entitled "Bacteriology and its Therapeutical Relations," was a very valuable contribution to this chapter in medicine; not visionary and erratic, but conservative and sensible. He pointed out the modern tendency in the direction of hypothesis and abstract theory, and advised the return to surer and more conservative methods of research by experimentation and exact establishment of facts. He compared the history of medicine in the Middle Ages, when men took inferences for facts, with the progress at the present day, since the adoption of experimental methods of research. Medical progress, he believed, had not been hastened by the modern tendency to bacteriology as an abstract system, and not as a study auxiliary to the practice of medicine. He told us that in the air of the Rue de Rivoli, of Paris, bacteriologists had found bacteria in such abundance that a man must breathe many millions of them during the course of the day. Most of us live in the midst of these microbic enemies of our lives, yet comparatively few fall victims to their destructive tendencies. Modern research has certainly demonstrated the connection between these microscopic little beings and certain diseases. There is no more important study for the medical man of to-day and of the future, than the methods for protecting the human body from their ravages. The

discovery of the microbes all about us has not aided us in the treatment of diseases as much as promised. The tenure of the lives of these little beings is somewhat similar to our own, and many remedies in doses fatal to them would be as destructive to ourselves. We are as yet at the very threshold of bacteriology and its therapeutical relations, and any contribution as valuable as that of Prof. Semmola is always welcome.—*N. O. Med. and Surg. Jour.*

Antipyrin and Acetanilid in Nervous Diseases.

BY HAROLD N. MOYER, M. D.

Lecturer on Physiology, Rush Medical College; Instructor in Nervous Diseases, Post-Graduate Medical School, Chicago.

FOR several months current medical periodicals have contained numerous references to the analgesic properties of antipyrin, and its use for this purpose in the management of certain intractable organic lesions associated with pain. I wish to affirm my faith in the drug both as an analgesic and hypnotic, and briefly to relate my experience with it in certain cases in which it has been of great service.

Case I. A pregnant young woman, who had engaged me to attend her during her confinement, consulted me for a profuse leucorrhœa. An examination of the urine revealed some sugar, which a few days later increased to a considerable amount. It was at the height of this "glycosuric storm" that she developed a most violent hemicrania. The pain was intense, and the suffering of the patient past endurance. Antipyrin was prescribed, in ten-grain doses, every two hours. With the first dose the pain subsided; a single powder relieved all distress on two subsequent occasions. When the glycosuria subsided, the hemicrania also disappeared.

Case II. A lady called me one night to see if she could get any relief from a severe left hemicrania. She said that I was sent for more at the urgent solicitation of her husband than from any hope of relief, as she had never been given anything which shortened or mitigated the attacks. These usually came on at her menstrual periods. They increased with each period; at times, as at present, when she had been exposed to cold, they were especially severe. The pain was deep and boring in character, and seemed to

radiate from the ear. There was no evidence of inflammation about the ear, and no tenderness on pressure. She stated that on several occasions she had been given morphine, but it caused such great distress that she would rather endure the pain than take it again. Antipyrin was given in ten-grain doses every hour. After the second dose the patient passed into a quiet sleep, from which she awoke refreshed. The pain returned later, but was again relieved by the drug.

Case III. A gentleman of intemperate habits, who had suffered for years with neurasthenia, headaches and insomnia, and had taken drugs of all kinds in marvelous quantities, sent for me one evening in consequence of a severe neuralgia of the inferior maxillary division of the fifth pair. He had been exposed to cold and wet the day before, and had been suffering severe pain all day, which had grown worse as night came on. The pain was of the pure neuralgic type. Knowing the patient's toleration for drugs, I gave him antipyrin with, I confess, but little hope of benefit. Much to my surprise the first dose relieved all pain, which did not again recur.

Case IV. was one of frontal neuralgia in a man forty-five years of age. He had been a fireman for ten years, and the exposure incident to that occupation had caused a severe nasal catarrh. The mucous membrane of the nose was not thickened, but was of a bright scarlet hue, and in places the epithelium was eroded. As a matter of experiment, I gave him antipyrin to see what effect it would have on a reflex neuralgia of this kind, but he experienced little benefit. After two days the drug was discontinued.

While four cases are too few from which to draw any broad conclusions, yet I think they justify the assumption that antipyrin is useful in those cases of headache and neuralgia in which the proximate condition is one of vasa-relaxation and hyperæmia, more especially when this condition is local, and is associated with a general vaso-motor spasm and high arterial tension. I believe it to be one of the best equalizers of vascular tension in the list of drugs, and the following case may be cited in illustration: A lady over sixty years of age, was taken with what I regarded as a mild malarial attack. Her temperature was 102° F., and she complained of a severe headache. Albumen appeared in her urine several years ago, and she had a murmur preceding the second sound of the heart. These conditions

are associated with an extreme degree of atheromatous degeneration of the arteries. She complained of a feeling of weakness in her right side, and I considered a cerebral hæmorrhage as highly probable. Antipyrin was continuously given in five-grain doses, and the effect carefully observed. At the end of an hour and a half all the alarming symptoms had disappeared, the arterial tension was lowered, and the patient was in a gentle perspiration.—*The Medical Standard*.

Suffolk District Medical Society.

THE CONTAGIOUSNESS OF TUBERCULAR DISEASE OF THE LUNGS.

DR. F. I. KNIGHT read a paper on the above subject and gave a report of one case. In July, 1885, a young lady of 19 came to my office with a history of cough of nine months' duration. I found signs of phthisis in one lung. Her father was a very strong man; her mother had died of some nervous trouble after child-birth. There had been ten children, five of whom died in infancy, none of them with any brain or lung disease. There had been also six half-brothers and sister, one of whom had died in infancy. Of the uncles and aunts on both sides, only one uncle had died of phthisis. The patient gradually declined, and died, April 15, 1886. She was accompanied in her visits to my office by an older sister, 23 years of age, who had given up everything to attend her. This sister, while not robust-looking, appeared well, and said that she had always been so. She occupied the same room and bed with her sister. This I protested against, and advised her to go out regularly every day for walks in the fresh air. The last record made of their visits to me was in the latter part of October, when the phthisical patient became too sick to come to me, and went under the care of her family physician in a neighboring city. She died, as I said, on the 15th of April. On the 19th of April the sister came into my office with the following history. She had continued to attend closely upon the invalid all winter, and had disregarded all my advice. She had even slept with her sister up to within five weeks of her death. She was with her night and day. During the latter part of her sister's life her breath was so offensive that she could eat almost nothing, and only kept herself up by the free use of stimulants. She stated that she had had a

little dry, hacking cough for a month. She breathed rapidly, but said there was no dyspnœa. On examination her pulse was found to be 140. Temperature 104° . On examination of the chest, subcrepitant râles were heard in both upper lobes, front and back, and the diagnosis of acute pulmonary tuberculosis was made. Examinations, April 26 and May 3, confirmed the diagnosis. On the 21st of May, she came to my office so weak that she had to be assisted from the carriage to the house. She reported hæmoptysis of several months two weeks before. She was so weak that I did not examine her chest. Pulse, 160; temperature, 103.4° . I did not see her again, and she died, June 17, 1886, about two months after I first examined her, and three months after the beginning of the dry cough.

Who can fail to believe that the disease and death of this patient was caused by attendance upon her sister? Hardly any one will deny this. Admitting it, would she have succumbed to acute *pulmonary tuberculosis*, if she attended upon a sister ill with some other disease? As she had no such hereditary tendency I do not think so. How often do we see patients worn out with much longer attendance upon the sick, and yet do not become tuberculous! And how often do we see strong women without the slightest hereditary tendency succumb to attendance upon tuberculous patients!

It is useless to allege in this connection, that ordinary attendance upon the sick in consumptive hospitals does not affect the attendants. I admit this fact, but the attendance is not so prolonged nor so close as in families. Let any one who has doubt about the clinical evidence bearing upon this point read the little brochure of Webb. The fact is that tuberculosis is so common with us, that we have almost ceased looking for the immediate cause in any case, especially if relationship gives us a chance to attach the blame to heredity. I believe, however, that there are hundreds who have by inheritance that peculiarity of pulmonary soil which favors the development of the tubercular disease. Who would not shun it unless they were brought into contact with those already affected? Whether all cases require such a transmission of germs we do not know.

In what manner is it probable that the disease is communicated? It has been claimed that bacilli have been found in the breath, but it is, perhaps, more probable that the communication in most cases is by dried sputum, which becomes

diffused in the atmosphere. We have abundant proof that tuberculosis can be readily communicated to animals little liable to it, for example dogs, by causing them to inhale for an hour or two a day an atomized solution of the sputa of tuberculous patients. (See the experiments of Tappeiner and others in substantiation of this statement.)

So then, I say that the appearance of tuberculosis of the lungs in countries where it was previously unknown, with the ingress of people from countries where it was common, the marked increase in the disease in the neighborhood of health-stations resorted to by the tuberculous, the personal history of the development of cases in our midst, and experimental work with the sputa, all point strongly to the probable communication of the disease under favorable conditions, and make it not only incumbent upon us, in case of pulmonary tuberculosis in a family, to establish precautions against communication of the disease, but make us criminally negligent in failing to do so.

What precautions shall we take? These pertain (1) to the patient; (2) to the quarters he occupies; and (3) to the exposed attendant.

The patient should be made careful in the disposal of his sputa, either to deposit them in a cup in which some germicide has been placed, or if the patient is feeble and obliged to use cloths, let them be destroyed before any drying occurs. It would hardly seem to be necessary to warn respectable patients not to spit about them carelessly, yet I have seen with respectable people the most utter indifference in this regard.

For disinfection of the spit-cups, Dr. Ernst informs me that a five per cent. solution of carbolic acid is the best. Corrosive sublimate does not answer, as it coagulates mucin, and does not reach the bacilli at all.

In regard to the room: we should secure change of air by every known device, and as long as possible by a daily removal of the patient from his room, for the purpose of thorough ventilation. Clothing and bed-linen should be frequently changed. The absolute value of antiseptic sprays for the room in such cases we know not, and the use of those which are offensive in themselves should not be recommended. But such as are pleasant to the patient and attendant would be of service at least in counteracting the disagreeable odor which attends the last stages of pulmonary disease.

In regard to the exposed persons, let it be said that from the moment tubercular disease is discovered, another person should not occupy the same bed, not only for the sake of the exposed person, but also that of the patient, who will rest much more comfortably alone. Sleeping in the same room should also be forbidden, as we seem to be more susceptible to all infectious diseases during sleep. The attendant should have daily exercise in the open air, and if a relative, an occasional complete change, if possible. In case of any failure in health, this should be insisted upon, and although the physician can not always prevent self-sacrifice on the part of friends, he can often modify it. At any rate, he should not feel that relief of his patient was his only duty, but that his duty extended to the surroundings of his patient, and required that these should be arranged with due regard to the protection of relatives and friends.

If there is any decided hereditary tendency to the disease, relatives should, if possible, be prevented from any attendance upon the sick, and put at once upon proper hygiene.

DR. STUART: When I was at the Carney Hospital I saw a case of a young lady; she was the stepdaughter of a consumptive who had just died; the question as to whether her mother died of phthisis could not be brought out. The patient did not seem to know. She was one of a family of eight brothers and sisters, all well, and she alone had evidence of phthisis. According to this patient's statement, while her stepmother was sick for fourteen months she had hardly been out of the house. Dr. Devine, in speaking of the case, said he knew of a draw-tender who had buried two wives of phthisis; the draw-tender had the disease of course, himself, and the only conclusion which he could draw from this case was that the draw-tender was out in the open air almost all the time, while his successive wives were shut up in the house, and thus the course of the disease was made quicker for them.

DR. BLODGETT said that he could not refrain from calling attention to the fact in relation to tuberculosis, which is not sufficiently considered in the treatment of cases of this disease. He was happy to observe that the chairman had laid stress upon the same point, which is the eminently infectious nature of tubercular disease. There is no doubt that many cases of tuberculosis are communicated from one person to another, but the cases are not followed with that care which is everywhere thought desirable, even imperative, in relation

to other infectious and contagious diseases. The time has probably not yet arrived when we can test this class of diseases in the manner which would be applicable to other communicable diseases. We are too much under the domain of public opinion to venture the rational and only real method of treatment which is directed to the peculiar character of the malady in question. We can not properly utilize the knowledge which we already possess in relation to tuberculosis.

In some foreign hospitals, patients with tuberculosis are treated in the same manner as are those with other dangerous disorders; that is, the sufferer from tuberculosis is segregated from other patients, and is isolated in a ward devoted to infectious diseases, where he is subjected to a rigid seclusion from the other sick to whom the disease might be communicated. Much the same care and seclusion is exercised in relation to tuberculosis as is done with scarlet fever, measles, etc. Dr. Blodgett said that he had recently had a case under his own care in which the germicide treatment was adopted as one of the principal measures of relief, and in which there was an entire disappearance of all symptoms of disease. The patient is the son of a clergyman, and is about forty years old. His father was for many years a sufferer from chronic pulmonary disease, and died after attacks of pulmonary hemorrhage, presumably of tuberculosis. The mother is still living, but has long been in feeble health. The patient was never a strong man, but maintained his ordinary standard of health until five years ago, when he was the subject of fistula of the anus, for which he was under treatment by surgical measures for a year. Since that time he has been somewhat feeble, and eighteen months ago he began to fail perceptibly. Twelve months ago, he was under treatment for hoarseness, which advanced to a degree which rendered speaking above a whisper almost impossible. At this time he came under the care of Dr. Blodgett, who found distinct ulceration of the larynx, with induration and impaired mobility of the vocal structures; and by microscopic examination the bacillus of tuberculosis was readily demonstrable. The patient was at once placed under treatment by means of tonics, removal to the country, the use of antiseptic lotions and inhalations, principally of mercuric bichloride, the employment of which was rendered tolerable by means of antecedent applications of cocaine. He passed some months on the sunny side of a hill selected

with some care in New Hampshire, and late in the autumn returned to Boston. He gave up his previous residence, and removed to the highest part of Newton, into a new house, on sandy and dry soil, where he has since resided. He has steadily improved, his weight has increased from one hundred and twenty-two pounds to one hundred and forty pounds. He has never been so heavy as at present. He is gaining strength, the voice has returned, and there is every reason for believing that the disease has disappeared.

It is true that this was probably not a case of *contagion*, but it is illustrative of the way in which a disease which is contagious should be looked upon. It would, in all probability, have been perfectly possible for this patient's wife or child to have acquired the disease, by contagion. He had constant attacks of bronchial or pulmonary irritability, frequent catarrhs, and recurrent periods of hoarseness and threatened pulmonary tuberculosis. His system furnished a soil which was peculiarly adapted for the reception of such a disease.

DR. HAROLD WILLIAMS remarked that when a student he had been taught by Dr. Knight that phthisis pulmonalis was communicated by the sick to those in attendance upon them under certain conditions, and that in his practice he had never had occasion to change this view. He had not come prepared to cite cases in proof of this doctrine, but could say that he had never doubted its truth, and that he had each year many cases which confirmed it both at the Boston Dispensary and elsewhere. The two principal arguments against the view of contagion were: *first*, that phthisis was the commonest disease in our community, one-fifth of our people dying of it, and that cases of its supposed contagion were cases of coincidence. This argument Dr. Williams thought could be answered by saying that the reason of its frequency was because of its contagiousness, and the absence of sufficient precaution in protecting the well against the sick. The second argument of the immunity of the attendants of phthisical patients in hospitals had been answered by Dr. Knight. Dr. Williams not only believed phthisis to be contagious, but he believed the bacillus to be the element of contagion, and this had suggested to him that the well-known germicide properties of arsenic might account for the efficacy of this drug in phthisis, and that he was conducting some experiments to test this theory. Since reading Jaccoud's book, in which the administration of arsenic is

highly recommended, Dr. Williams had employed it in several cases with good results, especially in one girl with phthisis of three months' standing, in which case its administration had been followed by complete recovery. Dr. Williams questioned if the good effects so strongly insisted upon by Jaccoud might not be due to the germicide properties of the drug, rather than to its action as a tonic, and as diminishing blood pressure and calming nervous irritability as claimed by Jaccoud.

Abdominal Surgery—Suturing of Bones—Asymmetrical Conditions.

BY THOMAS G. MORTON, M. D.

A Clinical Lecture, delivered in the Pennsylvania Hospital, before some of the foreign delegates to the Ninth International Medical Congress. Reported by J. W. Sutton, M. D.

INSTEAD of showing to you, gentlemen, the ordinary class of surgical operations, I propose this morning to present to you some of the results which modern surgery has enabled us to obtain, and I have this morning the pleasure of showing you three cases of abdominal surgery.

The first of these cases which I will show you was a stab wound. This man, an Italian, was brought to the hospital at one o'clock in the morning, with a stab wound in the lower part of the belly, received in some affray on the street. The wound was half an inch in length, and had been inflicted with a pocket-knife in all probability. The pulse was normal, but much pain was complained of, and he was operated on at half-past one o'clock. The abdomen was opened by an incision extending from a little below the umbilicus to within an inch of the pubes. Clots of blood were turned out, a wound in the ileum more than two inches long was found, and a small artery wounded. The artery was ligated, the tear in the gut sewed up with fourteen-day catgut sutures, the wound in the abdominal wall closed with catgut suture, antiseptic dressings were applied to the wound, and he was placed on a diet of milk. On the twenty-eighth day after the operation he was discharged perfectly well, having been up and about the ward for ten days previous. The patient, after the operation, had not a bad symptom; occasionally there was some slight bilious vomiting, but there

was never a symptom, during his convalescence, which indicated serious abdominal trouble.

The next case is an exceedingly interesting case. The patient, aged seventeen years, was admitted to the hospital on the Fourth of July last, with a pistol-shot wound in the abdomen. In endeavoring to obtain possession of the pistol one barrel was discharged, wounding him in the abdomen. On admission the pulse was 92, temperature 98° , and the respiration 22 per minute. The abdominal cavity was opened in the median line by an incision six and a half inches in length, two inches below the umbilicus. The transverse colon was nearly torn across, and the jejunum had two openings in it. These were closed by suture, the abdominal cavity was sponged out with warm water, a good-sized drainage-tube inserted, and the walls of the abdominal cavity brought together and sutured. After the operation the temperature went up to 102° , but soon fell to 100° , and afterward still lower. The diet, for the first ten days, was simply peptonized milk. Dr. Smith and others of the many residents of this hospital will recollect that, in the older service of this hospital, as well as of others, hardly a service passed without a case of gunshot wound of the abdomen being allowed to die, such a thing as opening the abdomen not being thought of, or, if thought of, the thought was not entertained.

The next case is one of exceeding interest. It is an amputation of the appendix vermiformis, performed during the course of an operation for abscess.

This patient, some twenty-six years of age, had been subject for four years to pain in the lower part of the abdomen. Great prostration usually followed these attacks of pain.

On the 27th of last April an operation was performed. The patient had been feeling very ill for some time, having suffered an unusually severe attack, and being greatly prostrated.

On examination, a resisting mass could be felt on deep pressure in the right iliac region. The symptoms all indicated abscess. An incision, ten inches long, was made through the muscular wall of the abdomen, in a curved direction, and a large quantity of pus let out. The appendix vermiformis was immensely large, and it showed a perforated ulcer, with a concretion about three-quarters of an inch in diameter, firmly imbedded in it. A strong silk ligature was applied around the appendix vermiformis, close to the

cæcum, and the appendix was removed; the abscess walls were curetted, a drainage-tube was introduced, and the edges of the wound brought together, and antiseptic dressings applied. Convalescence went on rapidly. The temperature, which prior to the operation was 103.5° , at once fell, and did not again go above 100° . In this case you will notice that I deviated from the usual line of incision, and made my incision through the abdominal muscular wall. It seemed to me that the nearer my incision was to the seat of disease the more space there would be, so I made it in a curvilinear direction.

I can hardly explain to you how exceedingly critical this patient's condition was, but he rallied immediately after getting rid of the septic material, and his progress toward health was uninterrupted.

I now want to show you a few cases illustrating joint surgery, and especially the union of patellas by suture. In some cases union was very good, merely by mechanical appliances. For twenty years past I have been in the habit of using some form of mechanical appliance for the treatment of fracture of the patella, one of the best being this instrument, which I devised for pinning the portions of the fractured bone together.

After having inserted the pin in the pieces, the two portions were drawn together by means of the screw here on top, and after the parts had united the instrument could be removed by withdrawing the pin, for which means have been here provided. This, while answering in the majority of cases, did not do in all. In one case I found a thick muscular layer covering the bone, and I found that the quadriceps had been torn across and had fallen down between the pieces of bone, rendering apposition of the pieces impossible. This man, aged thirty-six years, had been injured by a fall, resulting in great contusion and fracture of the patella.

On the 9th of March the joint was opened. There was a transverse fracture of the patella and also a great amount of blood effused into the joint.

The torn surface of the quadriceps, which covered the patella and had fallen between the fragments, was removed, the bone drilled in three places, and the pieces brought together and sutured with the strongest catgut. The edges of the wound were then brought together, and the wound dressed antiseptically.

On the twentieth day after operation the wound was dressed for the first time, and on the thirtieth day he was discharged cured. His temperature went up a little on the third day after operation, but at no other time was it much above normal.

This patient was told to be very careful about movement of his knee, he accepted too literally, and has gone on without scarcely moving it, and, as I see, there is some rigidity of the joint, which will pass away in time.

Now here is a patient who was admitted in the house on the 7th of last May. He had received a fracture of the patella in jumping from a car.

Posterior splints were applied, and on the 10th of May an incision was made, the blood was washed out with a bichloride solution of the strength of 1 to 2,000, the parts brought together, and, after the introduction of a catgut drain, the wound was closed.

On the 19th of May the parts were dressed for the first time, and the case went on to a successful termination.

The temperature never rose above normal except on the fourth day, when it went up to 102° .

Now, in this case we have an interesting example of bony union following the use of Malgaigne's hooks, and I think it is the best example I have seen. It was done six years ago. I do not think it possible to determine the line of fracture, except a little line along the lower part of the bones.—*The Medical Register*.

The Deleterious Results of Narrow Prepuce and Preputial Adhesions.

DR. LEWIS A. SAYRE, OF NEW YORK.

HIS first paper on this subject was published in the "Transactions of the American Medical Association." He was the first to draw the attention of the public to this important subject. It is now generally admitted that paralysis and various other nervous symptoms, including a want of co-ordinating power, are in some cases induced by the pressure of the prepuce on the glans. The remedy is removal of the constriction and of the retained and concrete smegma, and such an arrangement of the parts that the prepuce shall glide *easily* to and fro over the glans, without

restriction, permitting cleanliness, and thus removing one great source of danger.

For this proper arrangement of the prepuce it is necessary in some cases to perform circumcision, or an actual removal of a small portion of the prepuce, and sometimes to dissect it from *actual adhesion*, which is a very different thing from ordinary normal agglutination. But there is no occasion for removing any tissue, unless there is great redundancy *with constriction*. And in the great majority of cases the object sought can be easily accomplished by pushing a grooved director as far back as possible, and then dividing with the curved bistoury enough tissue to allow of tearing back the prepuce and uncovering the glans. The next step is to make a slight nick with the scissors, or bistoury, through the thickened fold of the edge of the frenum. Having done this, it is easy with the thumb and forefingers to tear down the frenum and other adhesions, expose the glans, and remove from the sulcus behind the corona the hardened smegma, sometimes containing chalky concretions. In this procedure there is little loss of blood, and no loss of tissue whatever. A stitch on either side of the incision, between the skin and the mucous membrane, may or may not be required. Thus the glans is left partially covered, and it may as well be *freely* and *easily* uncovered. Having been responsible for bringing the subject before the profession, the writer wished to raise his voice against the mutilation and disfigurement of the organ which is often seen, which by too free removal of the prepuce leaves the glans entirely unprotected, as well as against the indiscriminate performance of the operation in cases where it can be of no avail.

The object of the paper was to harmonize two views—that of those who would operate in cases of infantile paralysis, and that of those who deny the existence of a paralyzed or even muscular inco-ordination from reflex genital irritation—by showing that there are cases of anomalous and extraordinary nervous manifestations certainly dependent on some irritation of the genital organs, in which an operation is not only justifiable, but absolutely demanded, and that in many instances the relief from all the strange symptoms has not only been immediate, but permanent after the operation, without any other medical or surgical treatment. It is also equally certain that any attempt to relieve a nervous disturbance dependent on some central lesion of

the brain or spinal cord would result in no benefit whatever. The views of the writer were sustained by a large number of cases occurring in the practice of physicians in different parts of the country.

Dr. De F. Willard expressed his belief in the existence of reflex symptoms from genital irritation, and that many cases can be relieved by uncovering the glans. He advocated exposing the glans by manipulation with the thumbs and forefingers, without incision of the prepuce or frenum, continued and repeated until the prepuce is no longer tight.

Dr. I. N. Love, of St. Louis, Mo., had for many years practiced circumcision. He believed in the Mosaic law from the standpoint of sanitation, morality and the general well-being of the child. He had not succeeded in inducing mothers and nurses to secure absolute cleanliness when the sulcus is habitually covered by the prepuce.

Dr. S. C. Gordon, of Portland, Me., also advocated circumcision, and believed that it should be more radically performed than it usually is.

Dr. P. R. Furbeck, of Gloversville, N. Y., recognized the importance of uncovering the glans and securing easy motion of the prepuce, but believed in the value and importance of dilatation, because many parents refuse to accept the use of the knife. He recalled a case in which a child of six years was relieved from choreic symptoms by dilatation after circumcision had been strongly opposed.

Cerebral Abscess from Disease of the Temporal Bone.

MR. BARKER in the *Lancet* takes the position that more facts may be learned regarding localization and treatment of cerebral abscesses from a careful study of the pathology of the causes which produce them than from a search for special nerve symptoms. Especially is this true in cases dependent on disease of the temporal bone, which constitute at least one-third of all cases. Subdural abscesses are, as a rule, only in very chronic cases, and are very hard to diagnose at an early stage with certainty unless by exploratory operation. His observations in the post-mortem room lead him to locate the abscess either over the roof of the tympanum close to the squamoso-petrosal suture, or on the posterior surface of the petrous bone. In some cases it extends from one to the other of these spots. In the first

place it may be reached by gouging cautiously through the bone half an inch above and the same distance behind the center of the bony meatus of the ear. In the second, half an inch behind the center of the bony meatus. Both operations may be necessary to exclude subdural abscess; in that case the upper one should be performed first. Encephalic abscesses appear, broadly stated, to be produced in two ways—by a septic inflammation extending from the walls of the tympanic cavity into the substance of the brain and there setting up an inflammatory process in the white substance, or by extension from the middle ear to the dura mater and thence to the cortex of the brain through a more or less localized lepto-meningitis. Both may start from the same form of inflammation of the middle ear, with or without caries of its walls and with or without subdural abscess. In the first form there may be a considerable thickness of sound cortical tissue between the surface of the brain and the abscess. The course of the veins along which the inflammation runs is liable to considerable variation, but they usually pass from about the middle of the temporo-sphenoidal lobe either into the superior petrosal sinus or to the petroso-squamosal suture. Hence he concludes that these abscesses are usually in the middle or posterior part of the temporo-sphenoidal lobe, and that nine-tenths of them would be found to lie within a circle an inch and a half in diameter, with its center lying an inch and a quarter above and the same distance behind the center of the bony auditory meatus.

Abscess of the cerebellum he believes to be always found at the outer and anterior part of the lateral lobe, which rests against the petrous bone. The collections, when of ordinary size, are outside the motor areas, and press upon a part of the brain which is very tolerant of stimulation, and the functions of which are still obscure. So there may be no special nerve symptoms to guide, and reliance must be placed on the other general clinical signs. Among these he calls attention to the temperature. There is first a feeling of malaise and drowsiness, with slow pulse, terminating in a sudden great rise of temperature with a single rigor. Then the temperature gradually falls to subnormal, perhaps without subsequent rise. But in his cases the peculiarity was that the subnormal temperature was most marked in the evening. This is so unlike what we are accustomed to see with pent-up septic matter in other localities, when an

evening rise is characteristic, that he suggests it may have some special significance in cases of abscess of the brain. Sluggish but perfect cerebation is in some cases a very marked symptom. Optic neuritis he maintains to be valuable when taken in connection with other symptoms, but apt to be misleading if relied on to too great an extent.—*New York Medical Journal*.

Treatment of the Convulsions of Children.

DR. JULES SIMON, at a clinic in the Hospital for Sick Children, said that convulsions in children arose in the great majority of cases (eighty times out of a hundred) from digestive troubles. He included in the latter indiscretions in diet, entero-colitis and constipation. A cause to which he desired to direct particular attention, because it was ordinarily overlooked, was exposure to excessive cold or to extreme heat. Convulsions arising out of digestive disturbances should be distinguished from those occurring in fevers. The latter then often constitute the initial phenomena of pyrexia. Still further, convulsions may be symptomatic of albuminuria, which may be latent, and an examination for which should never be neglected.

Apart from divers other affections, convulsions may arise in profuse and prolonged hemorrhages. A practical point in connection with the latter, is that Simon has seen the pulling of a tooth in a teething child—and if there is a loose tooth in a child with convulsions the doctor is generally asked to draw it—followed by death in the midst of convulsions preceded by hemorrhage. He has also seen convulsions occur in a child who had continuous hemorrhages from a slight abrasion of the tongue.

Convulsions are rare between the first and second month, and are most common between the fifth month and the second or third year. Their frequency depends largely upon individual and family predisposition. Frequent repetition of convulsions ought to make one fear some cerebral complication.

While the convulsions continue the child passes but very little urine, and then with tenesmus. This persists while the disease lasts, but one may rest assured that when the urine flows freely the worst is over. This gives us an extremely important point for prognosis.

Generally convulsions come and go with great suddenness, but they may last eight days without occasioning a cerebral lesion. Prognosis is generally favorable except when the convulsions are secondary.

The first thing to do is to open the bowels. If the convulsion stops administer an emetic, but if the attacks continue, give eight grains of chloral by the bowel, along with fifteen of camphor and twenty drops of tincture of musk. In cases in which attacks recur at intervals of several hours, order a mustard bath, but only in cases where there is no fever. If convulsions still continue, blister the back of the neck, but only let the blister stay on three hours, and then apply a poultice; at the same time give the following draught:

R _x	Lime water,	f 3 iij
	Bromide of potash,	gr. xv-xxx
	Musk,	gr. jss
	Cherry-laurel water,	f 3 ss
	Syrup of codeia,	f 5 j
	Syrup,	q. s.

If the convulsions are of uremic origin, Simon does not hesitate to bleed. In a child four or five years old, three or four leeches may be applied behind the ear, or cups with scarification over the region of the kidneys, to withdraw three or four ounces of blood. At the same time the above internal treatment should be used. Even very anemic children bear the loss of blood very well.

Moreover, nervous children that seem by their excitability predisposed to attacks of convulsions, should be isolated and placed upon small doses of the bromide every three or four hours. This will very much diminish their chances of having convulsions.—*Medical and Surgical Reporter*.

Scarlatinal Nephritis from a Clinical and Pathological Standpoint.

DR. HENRY ASHBY, OF MANCHESTER, ENGLAND.

THE paper presented the results of his own observations in the wards and dead-house of Pendlebury Hospital for Sick Children, where fifteen hundred cases of the disease had been received in the past eight years. The disease had been observed in three forms: (1) An early or initial form,

not especially important when compared with the others, and (2) a variety dependent on septic changes, which leaves traces in the kidneys discoverable by the microscope. It occurs in the second and third weeks. In most cases this septic inflammation of the kidneys gives no symptoms distinguishable from those of general septicemia. It does not extend so widely in the tissues of the kidneys as to impair their functions seriously. The urine is not diminished, and general edema and uremic symptoms are absent. (3) Post-scarlatinal nephritis, or the nephritis of convalescence, far surpasses the other forms in interest and importance. It occurs in an apparently well or rapidly convalescing child, and is the last and often fatal assault of a disease which has been almost subdued. It occurs from the sixteenth to the twenty-fourth day. The kidneys, after this form of scarlatina, like the lungs in measles, are weakened by their efforts to eliminate poison, and are more readily affected by fibrinous or croupous inflammation. In hospital practice, at least, cases of mild scarlatina are less liable than severe cases to be followed by nephritis, which ranges in severity from cases which might easily be overlooked to those in which the uremic symptoms are sudden and alarming. The earliest and most characteristic signs are diminished urine and puffiness of the face, which may appear several days before albumen is detected. The amount of albumen and its specific gravity vary greatly in different cases. The urine continues to diminish in quantity, and edema of the face sets in, with vomiting and other uremic symptoms, when suddenly a crisis like that of pneumonia takes place, large quantities of smoky urine of low specific gravity pass, and the patient is convalescing again.

Ziemssen's Two Chief Therapeutic Measures in Typhoid Fever.

THE only drug to which we can ascribe a kind of specific action is calomel, perhaps on account of its entire or partial change, by the chlorine of the sodium chloride in the intestinal juices, into corrosive sublimate. I give calomel in three doses of gram 0.5 in two hours, and then obtain a number of thin, grass or moss-green (calomel) stools and a considerable reduction of temperature, which often goes down to normal and lasts about twelve hours. These are

the primary effects of calomel. The secondary effects of the drug consist in a modification of the intensity of the infectious condition, as Liebermeister has shown. Those cases which are early subjected to treatment by calomel generally run a somewhat milder course than those in which it is not used, or only used later; milder both in regard to the fever as well as in the local affection of the intestine. Next to calomel, baths deserve the greatest consideration. On his admission to the hospital, if his condition is not too bad, the patient receives a warm bath to cleanse the skin and remove possible parasites. Then the course of the temperature for twelve or twenty-four hours is determined by bi-hourly measurements, best taken in the rectum, because the patient can better endure the short duration of the measurement here (two or three minutes) than the fifteen or twenty minute measurements in the axilla; and even in private practice rectal measurements are but seldom objected to. In private practice, meanwhile, the necessary directions and regulations as to the bath and care of the patient may be given, the sick-room furnished with a change of beds, and everything in the way of linen, vessels, etc., prepared for a long sickness. When the normal temperature curve is determined, it is best to begin immediately with the baths, first with lukewarm baths at 86° to 81.5° F., fifteen minutes long, and with continual stirring of the water and washing over of the upper part of the body, so far as it is not dipped into the water. The higher the temperature goes the more severe the cerebral affection, the muscular weakness, and the intestinal affection, so much the cooler must be the bath; though for several years I have never given a bath lower than 63.5° ; that is, below the temperature of the room. In the hospital the bath-tub is placed by the patient's bed, with a screen around it, and the patient is lifted into it. It is necessary to renew the water in the bath only once in twenty-four hours. In many cases the bath is given only lukewarm (not under 75°) during the whole course of the illness, beginning each time with a temperature of 88.2° to 86° .

MARINE SALT IN ANÆMIA.—Hegar has used hypodermatic injections of a 6:1000 solution of marine salt, pure and recrystallized, with good results in anæmia. The condition of the circulation was improved, as was shown by sphymographic tracings.—*Révue de Thérapeutique*, August, 1887.

Microscopy.

PHOTO-MICROGRAPHY.—In the fifth volume, just issued, of the *Reference Handbook of the Medical Sciences*, published by Wm. Wood & Co., of New York, is a highly interesting article by R. L. MacDonnell, M. D., Demonstrator of Anatomy in McGill University, Montreal, on Photo-Micrography in Medicine. As we believe it contains information which will be interesting to many of our readers, we will make some quotations from it. The article is quite a lengthy one and we can not, of course, publish it entire. Those who would like to read the whole of it will have to refer to the book.

“A photo-micrograph is an enlarged photographic image of a microscopic object. The term is now generally accepted by microscopists in this country and in England, but German authors commonly speak of such a picture as a micro-photograph. This has led to some confusion, as the latter term is used by English authors to designate a reduced photographic image of any object, made on so small a scale that a microscope is required to see it in a satisfactory way. Thus the Lord's Prayer has been photographed in a space no larger than a pin's head. [We have a micro-photograph of the Lord's Prayer on a spot, on glass, so small that it can not be seen with the naked eye—requiring a magnifying glass to see the point on which are seventy-one words and several hundred letters.—ED. NEWS.] The micro-photograph is interesting as an exhibition of the capabilities of the art of photography, but otherwise has no special value. The photo-micrograph, on the other hand, is a record of what has been seen under the microscope, and may have considerable scientific value. Its special value arises from the fact that it is a record made by the sun, and that, consequently, it is free from the principal objections which may be urged against drawings of microscopic objects, viz.: that they do not always represent exactly what has been seen under the microscope, but rather that to which the observer wishes to give special prominence, or that which he thinks ought to be present, and perhaps imagines that he has seen. In other words, the photo-micrograph rules out the personal equation of the observer.

“It is well known to expert microscopists that the picture seen under the microscope may tell a different story to dif-

ferent observers, and that very remarkable misinterpretations of what is seen may be made by those who are not familiar with the use of the instrument, and even by those who have had considerable practice with it. The photo-micrograph enables us to interpret for ourselves the appearances which it records. It also enables us to form an estimate of the technical skill of the one who made it, and to decide, in some measure, how much weight we should give to his recorded observations. A novice in the use of the microscope may be quite skillful with his pen and pencil, and may make it appear that he has seen something quite novel and remarkable. After reading his statements and looking at his drawings, even an expert may be left in doubt as to the value of his observations. But if he makes a photo-micrograph in which an air-bubble or a pollen grain which has accidentally fallen upon his preparation, or any other object with which microscopists are familiar, is pointed out as something new or curious, his illustration will at once show what value should be placed upon his observations. Again, if the photo-micrograph shows serious defects in the preparation of the object photographed, or in focusing the image, etc., the inexperience of the one who made it will be apparent.

“But this will be apparent only to an expert who is familiar with the image of the same object as seen under the microscope. Just as the practiced eye is needed to interpret properly the picture seen through the tube of the microscope, so also it is with the photograph image of this picture. Indeed, it requires even greater experience, for under the microscope we have sharper contrasts, and color pictures, and the opportunity to use the fine adjustment-screw, by which different planes in the fluid are brought successively into view. In a photo-micrograph one can only have a well-defined picture of that portion of the field of view which is perfectly in focus, while all details of structure which are not in focus, and all extraneous objects, serve to confuse the image, and to a certain extent destroy the value of the picture for any but an expert. The expert, on the other hand, is in the habit of disregarding extraneous objects and those portions of the field under the microscope which are not in perfect focus. Knowing the difficulty of obtaining ideal pictures of this kind, he may be content with the way in which the essential features are brought out in the photographic image, and will make due allowance for

the technical difficulties which must be encountered by the conscientious observer who undertakes to furnish a sun picture of the object or appearance to which he desires to call attention. But one who is not familiar with the picture as seen under the microscope, or with the difficulties attending the attempt to reproduce it by photography, is apt to be hypercritical. He prefers the sharply drawn lines of a wood-cut, such as he is familiar with in the text-books. He makes no allowance for the technical difficulties of which he has no knowledge, and demands such a picture as he is familiar with. Photo-micrographs are, therefore, for the educated eye rather than for general purposes of illustration. A drawing which is diagrammatic, and which exaggerates the details to which special attention is called, may be more useful for the instruction of beginners than the most accurate photograph from nature."

The writer thinks that all microscopic pictures can not be equally well photographed. Diatoms and blood corpuscles, he says, are among the objects which are best suited for photographing by transmitted light, while, on the other hand, it is quite impossible to make a satisfactory photograph of many microscopic objects which give a most beautiful picture under the microscope.

It is essential that the object shall have a certain transparency for the actinic rays of light, otherwise these rays are completely arrested and we shall have no picture at all, or a picture in which the object is simply outlined by the effect of the light which has fallen upon the plate around it.

Opaque objects can not be photographed by transmitted light. Objects which are opaque for the actinic rays can not be photographed by transmitted light; this includes all objects having a deep orange or red color. Objects which are transparent for the actinic rays, or nearly so, give a feeble photographic image or none at all, on account of the want of contrast in the impression made upon a sensitive plate, therefore, objects stained in violet or blue are not suited for photographing.

Gleanings.

ALCOHOL AS AN ANESTHETIC.—Dr. Link, of Indianapolis, Ind., says he has used alcohol in over a hundred cases, and never had a fatal result, while the anesthesia was complete.

The whisky is to be given in two ounce doses, every two to five minutes, until a pint to one and a half pints has been taken and the patient has become stupefied. Then about two drachms of chloroform are placed in the cone, and a few respirations will put him to sleep. The operation can then be carried out. Dr. Link's reasons for using this method are that in cases of shock there is depression; the alcohol increases the heart's action, while the chloroform, which is a depressant administered as stated, secures the equilibrium of the heart's action.

THE DELETERIOUS EFFECTS OF TOBACCO ON THE THROAT AND NOSE.—Dr. M. F. Coomes, of Louisville, Ky., considers smoking far more injurious to these parts than chewing. The smoke comes into the mouth heated, and loaded with an irritating oil that would soon coat the mucous membrane were it not washed away by the saliva. Cigarette smoking is especially injurious, because the smoke is so universally inhaled, causing pharyngitis, laryngitis and chronic irritation in the nose, not to mention the injury it may occasion to trachea and lungs. Where the smoke is habitually expelled through the nose, we find hypertrophies, congestion, dilated vessels and a hemorrhagic condition. The smell is impaired or destroyed. The potash salts may also have some effect in adding to the injury. Ninety-five per cent. of smokers have something abnormal or unhealthy about the upper air passages. In bad cases he found chronic hyperemia and inflammation of epiglottis, with congested cords, and a hacking cough to remove the tough mucus; the voice tires easily.

Book Notices.

A REFERENCE HANDBOOK OF THE MEDICAL SCIENCES. Embracing the Entire Range of Scientific and Practical Medicine and Allied Science. By various writers. Illustrated by Chromo-lithographs and Fine Wood Engravings. Edited by Albert H. Buck, M.D., New York City. Volume V. Quarto. Pp. 813. Double Columns. Cloth. New York: William Wood & Co. Cincinnati: Garfield.

In previous issues of the MEDICAL NEWS we have noticed four of the volumes of this splendid encyclopedic work. Having described the characteristic features of it, there is

not much for us to say in directing attention to Volume V., which is now upon our table.

The four previous volumes carried the work through the letters of the alphabet from A to some distance into M, so that Volume V. begins with subjects the first three letters of the orthography of the names of which are Mil, the first article treating of Miliaria, "an acute inflammatory disease of the sweat glands, accompanied by the formation of papules or vesicles, from the size of a pin point to that of a millet seed, and giving rise to pricking, burning, or itching sensations."

The articles which make up the fifth volume have been contributed by some eighty-five (85) medical gentlemen. Among them are Drs. George M. Sternberg, N. Senn, James K. Thacher, Chas. S. Minot, Allan McLane Hamilton, Albert L. Gihon, N. S. Davis, Arthur Van Harlingen, Francis J. Shepherd, etc. Each subject considered is treated exhaustively, and not, as is generally the case in the ordinary encyclopedia, a mere synopsis given of the main points, expecting the reader to consult some other work if he desires information in minute detail. Besides, which is a matter of very considerable importance, every article contributed by a writer belongs to a department which he has made a special study. Certainly this renders the treatment of the various subjects more satisfactory, for the reader can feel the more assured that he has presented to him the fullest and most approved views. No one can so satisfactorily discuss a question as one who has made the study of it a specialty. Such a one can better appreciate the relative importance of various views; he is more competent to judge what may be accepted; and can better discriminate between new and approved opinions and old and discarded ones.

The *Reference Handbook of the Medical Sciences*, as we have pointed out to our readers, constitutes a complete medical library. In it will be found treated fully and satisfactorily all the subjects that compose works upon Physiology, Pathology, Materia Medica, Principles and Practice of Medicine, Obstetrics, Gynecology, Surgery, Ophthalmology, Hygiene, Descriptions of Medicinal Springs, Surgical and Medical Instruments, and subjects belonging to the Collateral Sciences. If a physician had no other medical work in his library than this one, there would be scarcely a subject pertaining to his profession in regard to which he could not obtain full information from it.

FUNCTIONAL NERVOUS DISEASES: Their Causes and Their Treatment. Memoir for the Course of 1881—1883. Academie Royale de Medicine de Belgique. With a Supplement on the Anomalies of Refraction and Accommodation of the Ocular Muscles. By George T. Stevens, M. D., Ph.D., Member of the American Medical Association, of the American Ophthalmological Society; Formerly Professor of Ophthalmology and Physiology in the Albany Medical College. *Traditionem pondero, doctrinam respicio, sequor veritatem.* 8vo. Pp. 217. Cloth. New York: D. Appleton & Co. Cincinnati: R. Clarke & Co. Price, \$2.50.

This is a work which physicians generally will be much interested in. There is no branch in medicine as interesting as the nervous system and its disorders. In fact, the better the nervous system is understood, the better a physician can appreciate the symptoms of all diseases; for through it the various organs are connected one with the other and made to sympathize with each other. A heavy blow upon the head, as is well known, causes vomiting; an overloaded stomach paralyzes the action of the heart; congestion of the portal system of the liver produces headache; mental emotion stimulates the action of the kidneys with some, and causes diarrhœa with others, etc. The great influence which the nervous system exercises over the body can not be overlooked by any one, it is so apparent.

But while much that pertains to the action of the nervous system is evident to all whose studies have not extended beyond the text-books in medicine, yet it oftentimes exerts a powerful influence, which only those who have given it special attention would recognize.

The work before us is composed of the memoir which received from L'Academie Royale de Medicine of Belgium, the highest honor awarded for the competition of 1881—1883. It sets out with a Statement of Principles, in which, after dividing nervous affections into functional and organic, the author treats of immediate and predisposing causes, hereditary tendency, reflex irritations, the eye as an irritating cause, theory of the adjustments of the eye. Then cephalalgia or headache is considered and illustrative cases are reported.

Without stopping to mention details, we find the following affections described and their treatment explained. Migraine,

or Sick-headache, Neuralgia, Spinal Irritation and Neurasthenia, Chorea, Epilepsy, Mental Disorders, Heredity. In the Supplement are discussed Refraction and Accommodation of the eye, the Eye as an Optical Instrument, Theory of Accommodation, Emmetropic Eye, Hypermetropic Eye, Myopic and Astigmatic Eye, Hypermetropia or Far Sight, Myopia or Near Sight, Examination and Treatment of Ametropia, etc.

The work is beautifully printed on beautiful paper, the type used being small pica, leaded. There are a number of plates, which will prove interesting to the reader.

TREATISE ON HUMAN PHYSIOLOGY. For the Use of Students and Practitioners of Medicine. By Henry C. Chapman, M.D., Professor of Institutes of Medicine and Medical Jurisprudence in the Jefferson Medical College of Philadelphia; Member of the College of Physicians of Philadelphia, etc. 8vo. Pp. 941. Cloth.

This is an entirely new work on Physiology, and not a revision of a work that has been before the profession for some time. With the many excellent works already before the profession, such as Dalton's, Carpenter's, Flint's, Youman's, etc., it may seem to many that the publication of another was unnecessary, but the author states that the experience of the past eight years, as Professor of the Institutes of Medicine in the Jefferson Medical College of Philadelphia, has convinced him that there is a want felt by students and practitioners of medicine for a systematic work, representing the existing state of physiology and its methods of investigation, and based upon comparative and pathological anatomy, clinical medicine, physics and chemistry, as well as upon experimental research. It is the hope, therefore, that the present work, which embodies essentially the author's teaching, will supply such a want.

While the work of Dr. Chapman explains the normal functions of the various organs of the human body and their relations one to the other, the same as other works upon physiology, it has the desirable feature of describing the processes of demonstration in studying the phenomena of physiology; for instance, there is a cut exhibiting the apparatus for showing the action of the diaphragm, also another figure demonstrates osmosis. From the first page of the work to the last page, along with the description of structure

and function, it is shown how knowledge is acquired and results obtained. As many of the medical schools, at the present time, have a demonstrator of physiology, as well as a demonstrator of anatomy, the work will be consequently of especial value; for the description of apparatus and methods of manipulation will assist the student greatly in understanding the demonstrations.

In regard to discriminating between the blood of a human being and the blood of some of the lower animals, the author says: "It is impossible to say beyond the shadow of a doubt that a given drop of liquid is human blood and not that of one of the lower animals, for the small size of the variable human corpuscle might lead the examiner to think the human blood had come from a dog or a mouse; while from the variable large corpuscles in the blood of these animals there might be a suspicion that their blood was human."

Previous to this quotation it is stated that when a large quantity of human blood is examined, probably ninety-five corpuscles out of every hundred will exhibit the same diameter; but in a medico-legal investigation the amount of blood put at the disposal of the expert is often exceedingly small—an old blood-stain, a single drop, perhaps, and possibly the variable corpuscles contained in this very drop. Now, as the size of the corpuscle in the dog or the ox varies as well as that of man, if the size of the corpuscle in the suspected fluid is only taken into consideration, the blood of a dog might be determined to be that of a man, and *vice versa*.

We have no doubt but that the work will be held in high esteem both by students of medicine and practitioners, and will hold a high position among the very best works on physiology.

DISEASES OF THE FEMALE URETHRA AND BLADDER. By F. Winckel, M.D., of the Royal University, Munich; and Diseases of the Vagina, by A. Breisky, M.D., of the Royal University, Vienna. Edited by Egbert H. Grandin, M.D., of New York. These two treatises constitute Vol. X. of "A Cyclopaedia of Obstetrics and Gynecology," (12 vols., price, \$16.50), issued monthly during 1887. New York: William Wood & Company.

Though forming one of the series of volumes of the "Cyclopedia of Obstetrics and Gynecology," yet this volume can be considered as an independent work, devoted, as it is, exclusively to diseases of the female urethra and to diseases of the vagina.

We can assure our readers that the work contains a very large amount of highly interesting information that we have never met with in any other work of its kind. There are many, no doubt, who would conjecture that, as the subjects treated of are surgical, all that is important in it may be found in the ordinary treatises upon surgery, but they would be mistaken. The close study and very extended observations of the authors have enabled them to secure and present to the readers of this volume a fund of valuable knowledge that is not contained either in any work upon surgery or in any gynecological work.

In the "Historical Retrospect" which forms the first chapter, we are informed that there were methods of exploration and treatment known to physicians hundreds and thousands of years ago, which, in the course of time, were entirely forgotten, to be rediscovered by succeeding generations. Numerous instruments are mentioned which were used before the time of Christ, and fell into oblivion, as the knowledge of the sciences was forgotten and ignorance prevailed everywhere. Our readers are aware that in the ruins of Pompeii speculums and catheters have been found.

In Part I. Malformations and Diseases of the Female Urethra are treated. Among them, will be found Congenital Malformations, Abnormal Shape and Position, Disturbances of Nutrition, New Growths, Neuralgias of the Female Urethra, Foreign Bodies in it.

In Part II. are considered Deformities and Diseases of the Female Bladder, as Developmental Deformities of the Bladder, Malpositions and Malformations, Injuries to the Bladder, Nutritive Disturbances of it, and Foreign Bodies in it.

Following after these Parts is the consideration of Diseases of the Vagina; among which are Ruptures of the Vagina, Hæmatoma of the Vagina, New Growths, Foreign Bodies, Intestinal-Vaginal Fistulæ, etc.

The volume will undoubtedly form a valuable addition to the literature of Diseases of Females.

Editorial.

POPULAR EXCITEMENT PRODUCED BY A SCHOOL-BOOK.—An excitement bordering upon the sensational has recently been produced in Cincinnati by a school-book belonging to the series of "Appleton's Science Text-books." Anatomy and physiology have been taught in the public schools of Cincinnati, we believe, for many years. For some cause, that we do not know, the text-book formerly used by the pupils for the purpose of obtaining a smattering knowledge of the "human form divine" and the functions of the organs contained in it (except the most important ones, the consideration of which is generally omitted from the school-books) was discarded about a year and a half ago and another adopted in its place entitled, "The Essentials of Anatomy, Physiology and Hygiene," by Roger S. Tracy, M.D., Sanitary Inspector of the New York City Health Department.

The new text-book, from the time of its introduction until within a few days of the time of our writing, caused no excitement or adverse remark. But about a couple of weeks ago an excitement was created which has assumed a sensational character. Preachers of the largest and most popular churches have devoted whole sermons in denouncing the work—having previously announced in the daily papers that it would be the subject of their discourse; many articles have been published criticising it in the severest terms; it has been discussed in club-rooms; and business men on 'Change have made it the topic of conversation.

Our readers will naturally inquire what is there in the book that has excited this deep feeling? In the latter part of the work the author has devoted several pages in discussing the effects of alcohol upon the human system. After treating of its deleterious action upon the heart, the lungs, the liver, and treating of chronic alcoholism, the claims of alcohol as a food, the action of it in diminishing the powers of endurance, the destructive effects upon the body, upon the mind, and its debasing influence upon the moral nature, etc., the following statement is made on page 295: "If alcohol, as has now been shown, is not a tissue-building food; if it interferes with the normal physiological processes in the body; if it does not protect against cold, heat, or disease, but, on the other hand, tends to produce almost universal degeneration of the organs, to cripple the mind and destroy

the moral sense; if it produces, when used in excess, nervous disorders of the most frightful character—why is it so generally used as a beverage? Why are men so fond of it?

“Its wide-spread temperate use is undoubtedly to be accounted for by its exhilarating effect in small doses, and the kindly and generous spirit of mutual toleration which it fosters on festive occasions. In the promotion of a delightful sociability, no other food or drink can be for one moment compared with the beverages containing alcohol. Even this, its first effect, is due to a partial benumbing of the brain. Under its influence all drop for a time the mark of conventionality, and enjoy a freedom of manner and of conversation which is to most people a delicious occasional experience. But this does not explain the craving of the drunkard. He does not drink for sociability; on the contrary, the confirmed sot often prefers to drink alone, and he passes as rapidly as possible through the stage of exhilaration into the stage of narcotism, when he is dazed, stupid, benumbed, only sensible of the thrill that pervades the body as the fiery alcohol bathes the shrinking cells.”

On page 280, in speaking of alcohol as a food, the author says, “In stating that alcohol is a food, a distinction must be made. It can not be considered a food in the sense of nutriment. It does not go to build up wasting tissues, like the meats, vegetables and fruits, but it keeps up the animal heat, and in some degree prevents the waste of tissue. It might thus be called a supplementary food, or an indirect food, for the following reasons:

“1. Small amounts disappear in the body and are not excreted under the form of alcohol.

“2. When no other food is to be had, or can be taken (as by sick persons), life may be supported for a considerable time on alcoholic liquors, which would not be possible if they acted merely as stimulants.

“3. When alcoholic liquors are taken with meals, less food is required to maintain the normal physical condition than if no alcohol is taken.”

In the two quotations we have made from the author's dissertation upon the effects of alcohol there is embodied all, we believe, that tends to commend the use of alcohol to the young or to cause them to look favorably upon it as a beverage. It can not be denied that it is a powerful stimulant, and that when a sufficient quantity is taken excitement supervenes, when the ideas flow freely and there is a feeling

of cheerfulness and gayety; when bright people seem more brilliant, and witty ones surpass themselves; but when the author attempts to state the reason why men are so fond of it, it must be admitted that his language is more florid than is necessary, using rather glowing terms in describing the effects of alcohol when indulged in *in a moderate degree*. In popular declamations it is proper to endeavor to be eloquent, but attempts at eloquence in a scientific work are out of place. In such works we expect only the bare facts to be described in plain, unostentatious language. But our author, in setting forth the effects of strong drink, in small doses, upon a company of persons gathered together for social enjoyment, eloquently asserts that "on festive occasions it fosters a kindly and generous spirit of mutual toleration;" that, "in the promotion of a delightful sociability, no other food or drink can be for one moment compared with the beverages containing alcohol. Under its influences all drop for a time the mask of conventionality, and enjoy a freedom of manner and of conversation which is to most people a delicious occasional experience."

It must be admitted that the glowing description of the author in describing the pleasant effects of alcoholic beverages "in small doses" is calculated to mislead the careless, by causing them to conclude that moderate indulgence in them would be attended with no harm, and that, on social occasions, they could use them with advantage. Youths, with their limited observations, are often not aware that however much the wine-cup may seemingly promote sociability, yet it has in it that "which biteth like a serpent and stingeth like an adder;" in other words, that it possesses a mysterious property which sometimes begets in a person, who even employs it moderately at first, an appetite for it so strong that he can not control it. We do not believe that Dr. Tracy, the author of this school-book, thought for a moment that the remarks we have quoted would tend, in the least, to give young people a favorable opinion of the temperate use of alcoholic liquors. We have no doubt that it was only his intention to state effects that every one admits, and, of course, no one denies—namely, that alcohol taken into the system in an amount short of bringing about intoxication, produces a condition of excitement in which ideas succeed one another more rapidly, the imagination becomes stimulated, and pleasant emotions are in the ascendency. Of course, under such circumstances, sociability

seems to be promoted ; but it is promoted at the expense of a depression of the whole physical vigor which afterward supervenes. If he had merely stated the "plain, unvarnished facts," *and all of them*, we do not believe that there would have been any complaint about his book. In a scientific work "the whole truth and nothing but the truth" should be told. No fact should be kept back to please any one. If Dr. Tracy had made no mention of the stage of excitement that follows upon taking "small doses" of alcohol, and the peculiarities attending it, we would have regarded the work defective.

In other portions of the work the effects of alcohol, as it is contained in the beverages used as drinks, is generally described as deleterious. For instance, on page 289, when it is incidentally mentioned as a promoter of festivity, it is stated that even in "this stage of intoxication a close and sober observer can detect a loss of control, a slight diminution of will power; a slight lack of cohesion in trains of thought; an increased tendency to laugh, to declaim, to joke, to banter, which shows a diminution of intellectual power and an increased sensitiveness of the emotional nature." In speaking of the effects of liquor upon the heart, when not employed as a stimulant for some abnormal state, it is stated that, in healthy persons, if the heart is constantly stimulated to more rapid contractions than natural, exhaustion of the heart-muscles ensues. The heart becomes flabby and weak; its walls become thinner, and a condition known as a "fatty heart" supervenes. It is represented that with habitual drinkers the mucous membrane of the bronchial tubes becomes congested, and the secretion of mucus more plentiful. Colds are easily contracted, and a chronic bronchitis results. The air vesicles become dilated, followed by shortness of breath on the part of the sufferer. A constant cough and hawking of mucus follow, so that life is a burden both to him and others.

In concluding we will make one more quotation, and then we will dismiss the work. The essay of the author on alcohol will be found interesting even to physicians, although it has brought the work into disrepute, as a school-book, in Cincinnati. As the paragraph on the effects of alcohol in diminishing the power of endurance coincides with the views which we have often expressed, we will quote a portion of it:

"It was formerly believed that the use of alcoholic liquors

enabled men to endure extremes of heat and cold better than they could without such assistance; but the testimony of travelers, explorers, and army officers is now overwhelmingly against any such proposition. The action of alcohol in paralyzing temporarily the vaso-motor nerves, results in the overfilling of the capillary vessels and a great flow of blood to the surface of the body. This gives rise to a feeling of warmth. Every one knows that, in blushing, the face is not only red but hot. But this very flow of blood to the surface results in an increased radiation of the heat, and the temperature of the blood becomes lowered. Thus the feeling of warmth and comfort produced by a dose of alcohol is a deceptive one, for it really lowers the temperature of the body, and thus renders it less able to resist cold. The officers of Arctic expeditions are unanimous in their opinion that the use of alcohol in cold climates is injurious. In hot climates, on the other hand, there is less radiation from the body, and less blood is required to keep up the animal heat. The tissue-changes are less active than they should be for perfect health, and, as alcohol tends to prevent such changes, it increases the pernicious effects of the high temperature. In army marches in tropical climates it has been found that the drinkers of alcohol do not bear the heat so well as the abstinent, and that they are more liable to sunstroke. It has also been shown that hard labor, either physical or mental, is better done without alcohol than with it. This fact is recognized and acted upon in the training of athletes and prize-fighters, who are allowed in any case, only a small quantity of such drinks, and more frequently none at all."

We think that if the author would make some corrections in his essay upon alcohol, which we have understood has been added to his school-book on physiology since it was first issued, and omit his efforts at eloquence, it would be more acceptable. In describing the effects of alcohol in the way of promoting sociability, his style is not scientific by any means, and he does not state all the effects. As it appears in the work at this time, the essay is not suited to form a portion of a school-book. It is calculated to mislead and do harm.

THE ART OF READING LATIN.—This is the title of a small work, bound in paper, by Prof. Wm. Gardner Hale, of Cornell University. It is really a melancholy fact that hun-

dreds of young men, after having studied Latin for two years in the preparatory department of a college or university, and for four years while passing through the collegiate course, yet, after graduating, can not take up a Latin book which they have never read and read it readily unless it be an elementary reading-book made up of "easy Latin." There is assuredly something wrong in this fact—either the language must be exceedingly difficult, or the method of teaching it must be very imperfect, or both. Though we are willing to admit that the language is difficult to acquire, yet we insist that it can be so learned in six years' study that it can be read and written with ease, if a proper method of teaching it is employed.

If Latin and Greek were so taught in our schools and colleges that they could be read with ease after a student has completed his collegiate course, it would not be charged that the time spent in their study was thrown away, for a student, after quitting college, would not then throw aside his classical works never to look at them again; for, being able to read the grand literature contained in those languages, it would afford him, as long as he lived, the greatest pleasure to peruse it whenever leisure from business permitted him.

The most formidable difficulty in reading Latin with ease is the construction of the sentences. The Latin sentence, as every Latin scholar knows, is constructed upon an entirely different plan from that of an English sentence. In English as there is no change in the ending of nouns to represent the numbers and different cases, nor any change in the verb as the mood, tense, and person varies, and no declension of adjectives, etc., what is termed the natural or fixed order prevails in the arrangement of the words of a sentence, but as these conditions exist in Latin, a speaker or writer can place a word either at the beginning or at the end of a sentence according as he wishes to make it emphatic or not, and can make other changes in the position of words in consulting euphony, smoothness, harmony, etc. Besides this, the language has many troublesome idiomatic expressions; but the greatest obstacle in learning to speak and read it readily is the entirely different plan from that of the English in constructing a sentence.

Now until this plan is just as familiar to the student as the English; until he can take in the ideas of the speaker or writer, with the words of a sentence arranged as they are

spoken or written, just as easily as when arranged according to the fixed plan of the English language, efforts at reading Latin will be difficult and painful. Of course, under such circumstances, the student having quitted his Alma Mater and no longer compelled to delve, if, from the time of beginning his study of Latin to the close of it, he has been taught, in translating, to first change a Latin sentence from the Latin plan of the arrangement of words to the English plan, the reading of an ancient author will be too laborious to be attended with pleasure, and consequently the reading of Cicero, Virgil, Tacitus, Horace, and other great writers of the past will be neglected altogether while he lives.

The object of Prof. Hale's little work is to give instructions in learning to read Latin at sight. "The danger which threatens classical study to-day in this country," says the author, "is due in a large part to the conviction that the results obtained are very much out of proportion to the years of labor spent upon these languages by the school-boy and the college student. If the case were different, if the average college graduate were really able to read ordinary Greek and Latin with speed and relish, the whole matter would be on a very different footing from that on which it now lamely stands." We have no doubt but that the "Art of Reading Latin" will do not a little in arousing the attention of teachers to their very imperfect plan of teaching Latin, and consequently will contribute much in increasing the number of proficient Latin scholars.

VIOLATING THE LIQUOR LAWS.—The *Western Druggist* states that summonses have been issued against twenty druggists in Chicago for violating the city ordinance governing the sale of liquor. One of these druggists, a Mr. Secord, has already taken out a saloon license of \$500. It is said that the collector intends to enforce the ordinance, which he interprets also as prohibiting the sale of "bottle goods," such as "Duffy's" and "Belle of Bourbon," without a saloon license.

We regret very much that any druggist should condescend to make a saloon of his store, but it is often done. There are quite a number of drugstores in Cincinnati in which drinking is carried on to an extent equal to many saloons—into which any one may enter, walk behind the prescription case, and call for liquor. Whether or not these stores, since the enactment of the "Dow Law," by the Legislature

of Ohio, are compelled to take out a license, we do not know. They ought to be.

We learn from the *Reporter* that James A. Stewart, of Wichita, Kansas, seventeen years old, clerk in a drugstore, has been sentenced to four months' imprisonment and fined \$20,800, with costs, for violating the prohibition law. He pleaded guilty to an indictment of 2080 counts. We presume he was fined ten dollars on each count. It is stated that the punishment imposed upon Stewart is the heaviest ever given in the State for violation of the liquor laws. We think it is the heaviest ever given in any State or country.

INFECTIOUS GERMS.—The *Medical Record*, in an editorial upon the subject, says that the great argument in favor of the miasmatic-contagious view is, that persons do not catch cholera or typhoid as they do smallpox or scarlet fever. It is inferred, therefore, that the germ is discharged in an inactive form. But it is not necessary to assume this. Dr. Welch calls attention to the fact that the germs of cholera and typhoid have different modes of life to those of variola, etc. The cholera germ, for example, is eliminated only by the intestines; hence, however active, direct contagion can only occur through the stools. But bacteria are, as is known, never lifted by currents of air from the surface of fluids or from moist surfaces generally. Hence one might be in the closest proximity to the infected dejecta with perfect safety.

Cholera bacteria can only invade the air in a dry condition; but dry air quickly kills them. Again, the germs must be taken into the alimentary canal, in order to cause infection, and here again special conditions are necessary. It is, therefore, perfectly easy to account for the apparent inactivity of choleraic or typhoid excreta without assuming that the germs are obliged to undergo a development. On the other hand, the view that these germs are active, explains many cases in which direct and immediate infection has occurred, while it does not militate against the known facts that epidemics of the so-called miasmatic contagious diseases do not, as a rule, spread by direct contagion. Their mode of spreading, however, is dependent upon the peculiar life history of the germ, and its mode of exit and entrance into the body, not upon its inactivity when first eliminated.

The new view involves an abandonment of the terms miasmatic and miasmatic contagions.

THE STENOCARPINE SENSATION.—An attempt to impose upon the medical profession: Our readers are doubtless familiar with the reports of Drs. J. H. Claiborne, Hermann Knapp and Edward Jackson, concerning the so-called new local anesthetic, Gleditschine or Stenocarpine, which were published in the *New York Medical Record*, July 30, August 13 and October 1; and *Philadelphia Medical News*, September 3; in which Gleditschine was claimed to possess remarkable anesthetic and mydriatic properties.

It will therefore be of interest to them to learn that Messrs. Parke, Davis & Co. announce that an investigation at their laboratory, of a solution purporting to be a two per cent. solution of Gleditschine or Stenocarpine, which was supplied by Messrs. Lehn & Fink, of New York, has developed the fact that this solution, with which the experiments thus far recorded have been made, contains six per cent. of Cocaine and a sulphate of a salt which further experiment is likely to prove to be Atropia.

F. A. Thompson, Ph. C., also reports, after careful experiment with the leaves of *Gleditschia triacanthos*, from which Gleditschine or Stenocarpine is claimed to have been derived, that they contain only an infinitesimal percentage of an amorphous alkaloid devoid of anesthetic or mydriatic properties.

In the light of these facts it seems probable that the Stenocarpine sensation should be classed with the Hopeine fraud of malodorous memory, and that the physicians who have already published reports regarding Gleditschine or Stenocarpine have been the victims of a clever hoax.

JUDGE WILLS, of the Central Criminal Court, England, recently decided that willful infection with syphilis was a penal offense. The charge against the prisoner was in two counts—one that he had had carnal knowledge of an imbecile woman aged eighteen years, and the other (under 24 and 25 Vict. c. 100, s. 47) for a "fraudulent assault" upon the same woman, occasioning her actual bodily harm. The harm done was the willful infection with syphilis. The

prisoner was found guilty on both counts, and sentenced to two year's imprisonment for the first, and five years for the second. The judge charged that a man who has immoral sexual connection with a woman, knowing himself to be suffering at the time from gonorrhœa or syphilis, is liable to prosecution and penal servitude. The decision was based on a statute which simply enunciates principles of common law, and hence is applicable to the United States. A few cases tried under it would greatly decrease the number of innocent victims of venereal disease.—*Exchange*.

AN ANTI-SYPHILITIC AND ANTI RHEUMATIC.—Some years ago a considerable ripple was created in medical circles by the announcement, by Dr. J. Marion Sims, of the remarkable results attained in the treatment of syphilis by a combination of vegetable remedies first used by Dr. McDade at the South. This preparation, known as *Succus Alterans* (McDade), is a purely vegetable compound of the preserved juices of *stillingia sylvatica*, *lappa minor*, *phytolacca decandra*, *smilax*, *sarsaparilla* and *xanthoxylum fraxineum*, and has largely displaced mercury and the iodides as anti-syphilitics and as an alterative tonic in the myriad forms of scrofulous disease. Under its use patients develop an appetite and frequently put on flesh rapidly; in these all-important respects differing widely from the effects of mercurialization and iodism, which all too frequently follow the use of the more heroic but less effective alteratives. *Succus Alterans* is also becoming a very popular remedy with the profession, and being very extensively prescribed in the treatment of rheumatism, of chronic character especially. As no great claims have ever been made for it in this respect, but it has simply been placed upon its own merit, we think therefore it could possess no higher commendation.—*Mass. Med. Journal*.

Cablegram—LONDON, October 25th.

Wm. R. Warner & Co., Philadelphia, received highest award from American Exhibition in London for superiority of their sugar-coated pills and effervescent salts.

THE CINCINNATI MEDICAL NEWS.

VOL. XX. No. 239.
Old Series.

NOVEMBER, 1887.

VOL. XVI. No. 11.
New Series.

Original Contributions.

Hemorrhagic Malarial Fevers.

BY I. J. NEWTON, JR., M. D., OF BASTROP, LA.

Read before the Louisiana State Medical Society.

THERE is not in the entire science of medicine a more instructive study than that of malarial fever in its multitudinous phases.

Perhaps no type of this fever has so earnestly engaged the attention of medical men in the Southern States within the last few years as the disease now to be considered.

Owing to its various phases, the barrenness of scientific works upon the subject, and the difference of opinion that prevails in relation to its pathology and treatment, combined with the fact that in many sections of this State it is of frequent visitation and fatal type, make it an interesting and appropriate subject to be brought before this society for discussion.

In reference to its cause and origin I shall have very little to say, that matter having been thoroughly investigated and results published by such able experts as Dr. Joseph Jones, of New Orleans. It is the several forms, and the treatment thereof, of this affection that I propose to discuss before you to-day.

This form of malignant malarial fever has received a great variety of names, but it is at this time generally known either as *malarial hæmaturia* or as *hemorrhagic malarial fever*; the former taken from its most distinguishing feature, hæmaturia; the latter a name the significance of which is

derived from the frequent occurrence of hemorrhages in various situations. It is to be preferred to the former name, inasmuch as hæmaturia is not constantly present. Modern medical technology seeks to express in name the material pathology of any special disease and recognizes the danger of using technology so inaccurately that the name adopted may seriously mislead one in regard to the nature of the disease indicated. Therefore, the name hemorrhagic malarial fever will be retained, as preferable to the many suggested, since it has the merit of *not* expressing any definite pathological idea.

How long this variety of malarial fever has existed, is unknown. As a form claiming distinct notice, it has prevailed in different parts of the Southern States of this country during the last twenty years. We first hear of it in Thomas County, Ga., in 1843. Twenty years later we hear of it in Alabama, thence in rapid succession its appearance is noted in Mississippi, Louisiana, Texas and Florida, and at present is found in every malarial district of the Southern States.

This form of malignant malarial fever is due to the prolonged and potent action of the malarial poison, impeding nerve function and thereby causing secondary changes in either the fluids or solids of the system, which, in turn, subjects the system to accumulations of secondary blood poisons quite sufficient to exercise more or less influence in determining the phenomena of the attack. The action of the malarial poison is the same in all cases, whether mild or severe; the character and termination of the case, as well as the manifestations of the various symptoms, depending upon the extent of action of the primary poison, the *character*, *locality* and *severity* of the secondary affections and the state of the system at the time of the attack.

The hemorrhagic form of malarial fever is ushered in with a chill with or without rigor; the chill, usually one of a series, in most cases is severe and of the congestive type, and the danger that exists is to be ascribed to damages suffered during or in consequence of the chill; a well-marked state of pyrexia follows, differing in intensity in different cases, which subsides partially or wholly without perspiration.

If the supervention of secondary local affections is functional, the fever is of intermittent type, but if anatomical

in nature, the type of fever will be remittent or continuous.

The temperature quickly reaches its maximum which varies from 102° to 106° Fahr., and then falling and fluctuating as governed by sequels of the attendant congestion during the cold stage of the attack.

The pulse is always rapid and quick, seldom below 100, often as high as 140 or 150 beats to the minute, continuing frequent as a rule throughout the attack and into convalescence. In some cases, however, after the supervention of jaundice, the pulse becomes slow, falling even below the standard of health.

The tongue varies in appearance, sometimes broad, indented at the margin and coated with a thick yellow fur; at other times is flabby and very pale.

Nausea and vomiting are *early*, *incessant* and *prominent* symptoms throughout an attack.

The bowels are as a rule obstinately constipated; the first urine voided after the chill will be of a dark or bloody color, micturition early in the attack is painless, frequent and copious. Associated with the above symptoms there exists a painful restlessness referred to the hypochondriac region, and violent pain in the small of the back, well defined in the region of the kidneys.

Another prominent and usually constant symptom is *yellow skin* and conjunctiva, which varies from a light saffron to a deep bronze color. The symptom usually appears several hours after the chill that ushers in the disease, but in some cases precedes it.

Some of the symptoms of this disease require more than the transient allusion made of them in the above description, and to those I now invite your attention.

The pyrexia continues for a period varying from a few hours to several days, and is of one of three forms: Intermittent, where there is a subsidence of the fever and a periodical recurrence; remittent, if only a remission and periodical exacerbation, while in the continued type, the fever is continued, interrupted in rare cases at intervals of a few hours by rigors. This last form of fever is of a symptomatic nature, indicating no doubt the septic changes of the blood.

Nausea and vomiting are remarkably severe and persistent, due perhaps in the first stage of the disease to the congestion, during the chill, of the portal system of blood-vessels, "later

to the contact of the altered bile and the irritation of the nervous centers which supply the stomach with nervous force, by the altered blood and by the malarial poison." (J. Jones). The matters ejected from the stomach are usually, in the commencement, of a yellow color; later it becomes a bluish green or dark blue. Microscopical and chemical tests show that these consist almost always of biliary matters intimately mixed with mucus, and rarely contain blood. The evacuations from the bowels are of a greenish or black appearance, and of a thick, tarry nature. This appearance is due to biliary matters, as is easily shown by the play of bile colors exhibited on addition of nitric acid. The occasional appearance of blood in the evacuations from the bowels is recognized from its hemorrhagic nature. The almost constant symptom of yellow skin and conjunctiva is due both "to the accumulation of excrementitious material and bile constituents in the blood, and that excessive activity of the liver which the malarial poison appears to induce." (Bemiss). This yellow color tinges not only the skin, but many of the internal organs of the body, including the serum of the blood, and continues after death and into convalescence. Notwithstanding its rapid development and thorough invasion of the tissues, it is capable of rapid absorption as is seen in the intermittent type of this affection, where the patient after a paroxysm assumes his natural color only to become again bronzed upon a recurrence of a chill.

The next characteristic feature of importance is the *hæmaturia*, and this condition, save in rare cases, is found to exist in every case. It is denied by some observers of this disease that the urine ever contains blood, according the dark appearance of the urine to the presence of bile. Analysis of the urine, microscopical and chemical, has established the fact that it contains both bile and blood; in some cases the bile and in others the blood predominates.

Hemorrhages in various situations other than the kidneys occur, namely, from the bowels, gums, uterus, nose, stomach and blistered surfaces, and into the brain, pleural or other cavities. It may occur in some of these situations without hæmaturia, but the instances are rare.

The morbid conditions whose concurrence entails upon malarial fever a tendency to hemorrhages are by Dr. S. M. Bemiss classed together as follows:

- 1st. The blood changes of chronic malarial toxæmia so

alter the consistency of that fluid as to favor the occurrence of hemorrhage.

2d. The long persistent states of malnutrition in chronic malarial cachexias produce textural weakening of the vascular walls and increased liability to their rupture.

3d. Increased blood pressure during a malarial paroxysm put upon the vascular walls by passive congestions.

A dangerous and often fatal character of hemorrhagic malarial fever is caused either by the failure of the kidneys to eliminate the constituents of the bile and of the urine, or from rupture of the blood vessels of the malpighian corpuscles, which causes the tubuli uriniferi to be filled with coagulated blood, in consequence of which their function as excretory tubes is destroyed, the extent of the impairment depending upon the number of excretory tubes thus obstructed.

Coma and convulsions, symptoms referable to the nervous system, are of frequent occurrence and are probably dependent on the poisoned state of the blood from retained bile constituents or from uræmia.

The duration of the disease is variable. It may be cut short in a few hours or may continue for several days. Fatal cases usually terminate on third or fourth day, rare cases in a few hours, and other cases not till eight or ten days.

The peculiar features of this disease ; cases occurring in close relation with cases of intermittent fever, at same time of year and in similar exposures ; and the fact that the two diseases are readily convertible the one into the other, warrant the inference that it is a malarial disease.

The diagnosis in well marked cases is never difficult. The prognosis is usually considered very unfavorable, the range of variation in the mortality of this affection being from 15 to 50 per centum. The mortality necessarily attending this disease, in my opinion, should not exceed, with the proper treatment, 4 to 5 in the 100 cases.

Fatal terminations are usually caused by the failures to eliminate the constituents of the bile and the urine, manifested in profound coma on the one hand and uræmic intoxication with delirium, coma and convulsions on the other.

You will readily perceive from the foregoing views expressed that in the treatment of hemorrhagic malarial fever, I have no specific or routine treatment to suggest. It

is a matter of surprise as well as regret, there should still exist so much discrepancy of opinion in relation to its treatment.

"The treatment formerly was the deduction of theory, now the result of empiricism," is a statement of my friend, Dr. G. G. Buford, in a most excellent article upon this disease.

The statement of our respected President, Dr. R. H. Day, relative to the treatment of yellow fever, is equally as true of hemorrhagic malarial fever, namely :

"That the differences in treatment are due to several patent causes : to an indolent or hasty habit in the observation of the phenomena of diseases ; to the too common belief that every disease is a *distinct entity* and has its specific cure, and hence the routine treatment of disease by name, and lastly the fatal error of disregarding the facts and teachings of clinical experience, and taking up the assumed revelations of physiological research and experiment as the true basis of medication.

"That it is at the *bedside*, watching and interrogating Nature in her diseased manifestations, carefully tracing the symptoms back to the pathological changes and functional disturbances producing them, and carefully noting the operation and effects of the different remedies used, and the conditions, external and internal, modifying their action, that we can really, rationally, scientifically and usefully perform our duties as practitioners of medicine."

A treatment to be rational and scientific must be based on conditions and circumstances and the peculiar morbid actions that may attend each particular case.

If called to a case in the incipency of the paroxysm, *i. e.*, early part of cold stage, it will be important to realize the attendant congestion, since the nature of the attack is to be ascribed to secondary lesions produced during or in consequence of chill. If complications, such as overloaded stomach, etc., exist, their removal is imperatively necessary

Use such medicines as are indicated to mitigate or abridge the chill. During the chill the condition of the circulatory and digestive organs are not favorable for the administration of quinine or purgatives, therefore delay their exhibition. But all measures adopted of a curative nature must be promptly resorted to as early as possible in the hot stage, for we have to deal with a malarial fever of low grade,

and will have to contend with a train of morbid actions, such as perversions of secretions and diseased eliminations with a frightfully rapid march, that produces, if not checked, "chemical and molecular changes in the organic structures and fluids of the system, that render a cure impossible." (Day.)

After chill subsides, we have a train of symptoms to follow which must be treated according to special indications present in each case. In every case it is necessary, in order to relieve internal congested organs, to re-establish the functions of the skin, which usually can be induced by having patient given a warm or hot mustard foot-bath, under blankets to retain the vapor, supplemented by draughts of any warm diaphoretic beverage; this failing, pilocarpin, administered hypodermically, will usually determine the circulation to the skin. It can be easily maintained by giving small and frequent draughts of cold water, the patient to be kept covered with a light blanket. If the bowels are loaded and constipated, give enemas of a warm water to empty them, or if more active cathartic is required give sulphate of magnesia. Having thus cleared the stomach and bowels and restored the functions of skin, we can further investigate symptoms.

In all cases we have two poisons to contend with, namely: the primary malarial poison and the poisons caused by the elements of the bile retained in the blood, and the system must be relieved of them, for these rapidly cause structural changes in liver, disorganization of the kidneys and additional blood poisons. To meet these conditions I usually give ten to twenty grains of calomel in one dose, to be repeated with five-grain doses every three or four hours. The calomel soothes the irritated stomach, arouses the liver to its normal functions, and keeps up a free catharsis, thus aiding the kidneys in their efforts to remove the poisonous materials from the system.

If bowels do not continue to act spontaneously use enemata of warm water. Quinine is at the same time to be administered in three to five-grain doses, preferably given hypodermically, in order to secure prompt cinchonism and to avoid increasing the much-to-be-dreaded nausea and vomiting.

Nausea and vomiting, as already stated, are *constant* and *obstinate* symptoms, frequently baffling all remedial measures for their relief. Frequent draughts of hot or cold water, iced champagne, creosote water, hypodermic mor-

phine and atropia, etc., are usually beneficial in allaying these troublesome symptoms.

After the first twelve or twenty-four hours it is unnecessary to repeat the quinine, as it is then incapable of arresting the diseased actions that are characteristic of this disease during its latter stages. On the other hand, the habit of some practitioners to continue quinine in large doses is to be deprecated for reasons above stated.

When hemorrhages from kidneys or other situations *indicate* the necessity of hæmostatic remedies, give ergotin hypodermically, but the instances where this treatment will be required are *rare* indeed, and *if used* only in cases with dangers *directly* pointing to the effect of hemorrhage, may prove mischievous, especially so when hemorrhage is from kidneys, by interfering with the power to carry off blood, and thus eliminate from the system certain poisonous materials, the result of course being suppression of urine and uræmic poisoning.

The kidneys usually require stimulating to aid them in eliminating the secondary blood poisons and to *carry off* the blood and thus prevent occlusion of the tubuli uriniferi. Spirits of turpentine is best suited for this purpose, acting both as a diuretic and hæmostatic. It should be given in eight to fifteen drop doses every two or four hours. This to be supplemented by dry cupping over kidneys and frequent frictions with warm spirits of turpentine.

If the case is not seen sufficiently early to admit of this curative plan of treatment, or if the disease fails to respond favorably to the treatment, the complications that arise must be met by rational modes of treatment. Unless very grave structural changes take place in the renal organs, we may do much to save the patient. Standing in the presence of these grave perversions, *provided we recognize them*, we may do much to control and guide them toward safety.

If suppression of urine should come on, cloths folded in many layers should be dipped in boiling water, wrung out thoroughly, then held to the fire, and applied over the region of the kidneys, with oil silk over them. These should be changed every hour. Efforts should be made to excite copious action from the skin. This failing the bowels should be moved freely and frequently. The patient should drink freely of cold water and take occasional doses of turpentine or of nitrate of potash.

Wiping off the skin with cold or tepid water will frequently allay restlessness and quiet nervous irritation, or, when brain or kidney symptoms do not contra-indicate, morphia and atropia hypodermically acts pleasantly and beneficially upon these troublesome symptoms.

Muriate of pilocarpine in one-eighth to one-fourth grain doses, given hypodermically, will frequently arrest the rigors so troublesome in some cases.

There are sometimes distressing sequelæ during the convalescence, which yield kindly to appropriate treatment.

The anemic state of the blood demands hæmatic restoratives at the earliest possible time. Arsenic and iron, therefore, should be included in the prescription given.

The Mechanical Treatment of Syphilitic Psoriasis of the Mucous Membrane of the Mouth.

BY DR. M. HAROWITZ.

Translated for the CINCINNATI MEDICAL NEWS, by Julius M. Sommerfeld, M. D., formerly of Cincinnati, now of Vienna.

SYPHILITIC patients frequently present, in the late period of their disease, a change in the mucous membrane of the mouth known by the name of Psoriasis Mucosæ oris, Keratosis Linguæ, Ichthyosis Linguæ, Leukoplakia Specifica, Linguæ Geographica, etc. It is a disease of the epithelial structure of the tongue, corners of the mouth, the mucous membrane of the upper and lower lip, less frequently of the palate, gums and mucous membrane of the cheek.

Where these changes are found the epithelium is opaque, thickened, partly exfoliated, usually presenting an irregular surface. It is best developed on the upper surface of the tongue, large, broad, grayish white, thickened stripes occurring on either side of the central furrow, narrower ones along the edges of the tongue. The surface of the thickened portion is uneven, due to the fact that the epithelial layer of some papillæ is markedly increased in thickness, in others diminished, so that a bushy-like growth is developed. When of long duration nutritive changes necessarily occur in the growing epithelial layer; an inequality exists between the regeneration and degeneration, the result being the formation of callosities with intervening fissures.

As the disease progresses, the epithelial defects increase in size; they are deeper, the edges increasing in thickness until the submucous membrane, rich in nerves, is reached. In the meantime the surface of the tongue has become fissured from side to side, as well as from before, backward, dividing the epithelial surface into a number of small patches. This condition gave rise to the name *Linguae Geographica*. In this late stage the upper surface of the tongue presents a series of deep, irregular ulcerations and fissures, interspersed with thickened callosities, a picture characteristic of syphilis. The inferior surface of the tongue is but seldom affected, and then only presents a light form of the disease. This epithelial alteration, which may remain for years, is one of the most lasting products of syphilis; it possesses no virulence, and is most probably due to a structural change of the deepest strata of the epithelial coat of the tongue.

This affection would not merit such attention were it not for two special reasons. They are first, marked troublesome subjective symptoms; secondly, the peculiar growth which may lead to epithelial carcinoma. The subjective symptoms consist in pain when moving the tongue; when hard, strongly-spiced food comes in contact with the affected parts; finally, to a profuse flow of saliva—in some cases even salivation.

The fact that this anomalous epithelial structure of the mucous membrane is intimately connected with the formation of carcinoma has been so frequently verified, that no objection can be brought against it as a cause. The same condition is found in organs of analogous structural growth; for instance, in the skin, where epithelial carcinoma is frequently found. It is known that carcinoma at times is developed from papilloma, cicatrices, etc.

As a consequence, it follows that the therapy consists in preventing the abnormal epithelial growth; further the normal growth, and to provide the bereft patches with a permanent epithelial coat. The usual treatment has but slightly fulfilled this condition. The applications of caustics, penciling and gargling with astringents and antiseptic fluids, are of no benefit. A different method of treatment, which is very satisfactory, is the removal of the affected parts, especially the thickened edges of ulcerations, by means of the sharp spoon. The thickened edges have no tendency to cause a reproduction of the epithelium; with their removal new edges are presented, these have the tendency to repro-

duce the epithelium, and, in a short space of time, the defective spots have a normal covering of epithelial cells.

The affected parts are thoroughly scraped with the sharp spoon. The patient sits, the back and head firmly supported, the tongue fixed with the left hand.

The number of sittings varies according to the severity of the disease, and in obstinate cases may require twenty to twenty-five sittings. Special attention should be taken to remove the gray borders of ulcerations. The operation causes but little pain; the hemorrhage is slight.

The scraped portions may be penciled with an iodine-glycerine solution, or a ten-ounce solution of nitrate of silver. In very sensitive patients, the tongue may be penciled with a ten-ounce solution of cocaine; the operation is then painless. No general rule can be given as to how far the spoon should scrape, but for all practical purposes it is sufficient when the papillary layer is reached. This layer is recognized by the punctiform hemorrhages, which take place from the torn vessels. The normal epithelial regeneration is produced from the cell elements remaining, and in a short space of time the defective spots are covered with an almost normally colored epithelial layer. Experience teaches us that the specific treatment with iodine and mercury is of no avail.

The See-Saw Method of Treating Asphyxia by Drowning.

From a Manuscript of Dr. G. P. Hachenberg's "Medical Consultation Book." Reported for the MEDICAL NEWS.

"Place the patient on a portable platform, three by seven feet, and have the same balanced on the seats of two chairs, or, what is better, a narrow bench supported by four legs about three feet high. The patient at first is placed with the face downward, and one of the arms under the forehead, as recommended in Marshall Hall's method. An assistant is placed at the foot-end of the platform, with a firm hand to see-saw it, as directed by the surgeon. This reciprocating motion is to be in harmony with a normal respiratory action. The first few movements, slowly executed, will dislodge the fluids of the throat. The patient is now turned on his back, and Silvester's method enforced by raising and depressing the arms; but especial care is to be observed that the head goes down simultaneously with each

extension of the arms, and as the feet go down, the arms are brought to the sides of the body. The arms are under the management of two assistants, and two more are required where the lower extremities are likewise brought into requisition to favor the action on the diaphragm, the thoracic and abdominal muscles. Many a case of artificial respiration proved a failure because abdominal tension was overlooked. As the head goes down the abdominal viscera fall against the diaphragm, and by the aid of the thoracic and abdominal muscles, brought into action by the extremities, force the air, mucus and all foreign matter from the lungs and air passages; the blood also flows to the brain, right side of heart and lungs, stimulating these organs. Reverse this movement by bringing down the feet, the abdominal organs fall away from the diaphragm, drawing it along with them, an operation greatly facilitated by the aid of the extremities; the air rushes into the lungs to fill the vacuum created. The blood flows to the right and left sides of the heart and lower extremities in the way imitating the normal movements of respiration and circulation as nearly as may be. All the minor details of exciting respiration by artificial means are to be closely followed in enforcing this plan."

If this method gives us the best results, it can not be considered strictly a "ready method," except on board of a vessel, or in the hands of the life-saving corps and other places where ample help, skill and all appliances are on hand. But the ingenious practitioner would not be at a loss to substitute the platform for the bottom of a light boat, turned bottom side up; or even a common board, swinging it over the nearest fence or drift-log. A special merit of this method of treating asphyxia is that it is thorough in its effect and remarkably easy of execution.

Dr. Charles Shephard proposed a method to bring the diaphragm into action to effect resuscitation from drowning. His physiological theory we have accepted, almost verbatim, but practically his system is defective, and in particular in having no accessory measures associated with it.

DR. A. M. DUNCAN, of Hamler, O., reports the case of a retired practitioner suffering from glycosuria, who finds the greatest benefit in the use of buckwheat flour. The sugar almost entirely disappears from the urine, and other symptoms are removed when he uses this kind of flour.—*Canadian Practitioner*.

Selections.

Predisposing Causes of Disease in Early Life.

BY HENRY DWIGHT CHAPIN, A. M., M. D.,

Professor of Diseases of Children at the New York Post-Graduate Medical School and Hospital.

Read before the Clinical Society of the New York Post-Graduate Medical School and Hospital.

It has been my custom for some time past, in examining sick infants and young children, to look carefully for certain underlying conditions, that, if present, will modify both prognosis and treatment. I have been surprised, in so doing, to note how frequently constitutional states may alter the duration and severity of diseases in early life. Young protoplasm is quickly recuperative, and when the source of irritation is removed should speedily return to a healthy condition after inflammatory action. If this do not happen there must be some vice of system to explain a delayed recovery. The very existence of some of the diseased conditions in early life seems to depend largely upon systemic changes. Reference is here made to a perverted or morbidly arrested growth and development. Defective tissue-formation with malnutrition affords a favorable ground for pathological activity. According to my observation, the commonest predisposing factor to disease in infancy and early childhood is a condition of incipient rachitis. This is very different from the severer type of disease, when bony deformity has ensued, and the nature of the disturbance is plainly apparent. I would emphasize the fact, already noted by a number of observers, that a mild form of rachitis is exceedingly common among all classes, and its pernicious effects are especially seen in predisposing to disease and modifying its action. Before dwelling more upon this point, it will be well to glance at the symptoms pointing to a condition of incipient rachitis. A restless, fretful baby, whose sleep is uncertain, but yet who presents no marked evidence of disease, is often alike puzzling to mother and physician. Inquiry will probably reveal the fact that it is almost impossible to keep the suitable coverings on at night. As they are kicked off it will be found that while the body is hot and dry the head and neck are moist with

perspiration. A young child should always sleep quietly at night; if it do not, there is some source of irritation. It may be a temporary indigestion, but if such a state continue, there is probably a rachitic condition present. Fretfulness during the day is especially noticeable when the child is moved or handled. If let alone, it is tolerably quiet. This is an evidence of a general tenderness, which is probably located principally in the muscles. If this is very marked, the infant will make no effort to walk at the proper age, and such disinclination may even simulate paralysis. I have in a number of cases known such a condition to be confounded with ordinary infantile paralysis.

Dentition is delayed, perhaps, until nine, twelve or eighteen months, and the teeth, when they do appear, are apt to be badly developed. Delayed dentition, even with an absence of other symptoms, means almost surely a rachitic condition. I have met with a few instances in which infants, undoubtedly rachitic, got their teeth quite early. A persistent, subacute indigestion, with loose bowels, is both a cause and effect of this trouble. The earliest bony change, and in incipient cases often the only one noted, is some enlargement at the costo-chondral articulation. As a result of even slight softenings of the ribs, the chest may be somewhat distorted, and any subsequent disease of the lungs be rendered graver and the prognosis more uncertain. It is not necessary to describe the well-known bony changes of more advanced rachitis, as we are now dealing with only an early stage of the trouble. Dr. Gee considers that thirty per cent. of sick children under the age of two years are rickety. In such cases the tissues are in a state of irritability, from the presence of lactic acid or some other noxious agent in excess. Heitzmann, in artificially producing rickets in the lower animals by the administration of lactic acid, noticed catarrhal inflammation of the conjunctiva, of the mucosa, of the bronchi, the stomach, and the intestines, with emaciation and convulsive movements of the extremities.* If the irritating agent be not in such excess as to seriously attack the bones, through the epiphysial cartilages and periosteum, it is very apt to produce a disturbance of the mucous membranes. The slightest exposure of a rachitic child usually results in bronchitis. Such an attack is very likely to prove

*J. L. Smith : Diseases of Children.

obstinate to treatment. Collapse of air-tubes, with collection of muco-pus, may eventuate in a pneumonia, or, at any rate, render the prognosis grave. If there is deformity of the chest, preventing free expansion of the lungs, a simple pneumonia may become chronic, and death result. Even a slight bronchitis occurring in a rachitic child should receive early and careful treatment. All exposure must be rigorously avoided, and a more guarded prognosis given than would otherwise be thought necessary. Pertussis is an unfortunate accident for a rachitic child, as severe pulmonary trouble is liable to develop. An intercurrent disease, particularly such a one as measles, will probably be severe. Persistent indigestion with diarrhœa results from the irritable condition of the mucous membrane of the gastro-intestinal tract, and is often difficult to treat. Great care will have to be exercised in withholding food that readily ferments, as an over-acid condition of the intestinal tract is so generally present. While this exists it is almost impossible to give these cases much relief. The nervous system of these children is in a condition of very unstable equilibrium, the worst effect of which is seen in the tendency to convulsions upon the slightest irritation. A cause that in a healthier child would have very little effect may produce a severe or even fatal spasm in a rachitic child. I recently had sent to me from out of town a boy six years of age, who had had four or five convulsions at intervals of several months. It was doubtful whether the case was one of epilepsy or not, but as the child presented evidences of rachitis, with a history of occasional attacks of acute indigestion, I think the convulsions can be thus explained, and the case does not justify heroic and prolonged doses of the bromides, but rather treatment aimed at his general health.

Another common condition of early life that causes great susceptibility to disease is scrofula. The tissues here possess an especial liability to a low grade of inflammatory action characterized by cell-proliferation and a tendency to cheesy degeneration. This state may exist from birth, or apparently be induced by some intercurrent disease. As is well known, cutaneous and mucous surfaces are often affected by scrofulous inflammations. The neighboring lymphatic glands undergo hyperplasia, which remains after the primary source of irritation has subsided. Tracheo-bronchitis, either primary or secondary to measles and pertussis, often becomes very intractable in scrofulous subjects. Pneumonia will readily

ensue, and if so, the chances of caseous degeneration are greater than usual. I have seen such cases neither die nor get well, but drag on for months, perhaps eventually undergoing a partial recovery with a crippled lung, but more probably succumbing finally to exhaustion, induced by the disease. Entero-colitis is readily contracted, and apt to be obstinate to treatment. Vaginitis is likewise rather common. Hypertrophic tonsils usually develop in scrofulous children. I can not help thinking that some of the symptoms for which they are held responsible are really due to the faulty nutrition of the child, coexisting with its scrofulous condition. It is not necessary in this connection to touch upon the affections of the special senses as induced by a scrofulous state. Congenital syphilis is a condition that will predispose an infant or young child to disease, especially of the viscera. The manifestations of specific trouble in early life may be exceedingly irregular and puzzling to the physician. In many cases the poison does not appear to be present in sufficient intensity to produce any pathognomonic lesion. Its action is then manifested in the line of certain developmental changes with defective nutrition. I have often suspected syphilis in watching cases of faulty growth, and occasionally an undoubted specific lesion has confirmed the suspicion. Sometimes an infant suffering from this taint may be plump and well-nourished, but any intercurrent disease will quickly reveal a vice of system. I have recently seen a fleshy baby with a large mucous patch in the mouth which developed after some local irritation. Dr. Moncorvo, in a paper read at the recent International Medical Congress, stated that in an extensive practice in Rio de Janeiro and the province of that name he believed hereditary syphilis furnishes sixty per cent. of the cases of infantile diseases. He regards it as the most important factor of infantile mortality, either directly or by the severity which it imparts to the diseases of children.

We have, then, in mild cases of rachitis, scrofula and syphilis, where these affections present no very marked specific lesions, conditions that derive their principal importance from predisposing to disease and enhancing its severity. The importance of clearly appreciating this truth is seen in the fact that appropriate specific treatment must be added to the management of the local disease in order to be successful. If this were done, many diseases of early life

would not drag on to such a weary duration. Illness might likewise be prevented by extra care.

There is not a little in common in some of the lesions and the faulty nutrition induced by these conditions. Exact differentiation is sometimes extremely difficult. Scrofula and syphilis often seem very closely allied, and hard to clinically separate. Rachitis and infantile syphilis may co-exist. M. Parrot even considers that the former is a manifestation of the latter condition. Dr. Moncorva states in his paper that more than two-thirds of the rickety children in his practice show signs of syphilis, and it is rare to find an hereditary syphilitic child whose bones are not deformed by rickets. In this country we fail to find such a close connection between the two diseases. While the exact relation of these systemic vices is not certainly known, the common resultant of defective growth and nutrition will be such an important factor in modifying disease that the slightest taint must be carefully sought. Such investigation should form part of the routine in the investigation of children's diseases.—*Medical Record*.

Abscesses in the Region of the Rectum.

BY S. T. EARLE, M.D.,

Professor of Rectal Surgery in Baltimore Polyclinic and Post-Graduate Medical College.

ABSCESSSES in the region of the rectum and anus should be watched very carefully on account of the readiness with which they open into the rectum before such an accident is even suspected from external appearances. They may be divided into superficial and deep varieties. Of the first we have those that occur in the skin at the margin of the anus, which may be regarded as a simple furuncle, and arise from the same cause that produces furuncles in other portions of the body. They are so superficial as to offer no risk of rupturing into the rectum, and should be poulticed and incised when pus has been formed in them as the same condition elsewhere. Another form of superficial abscess is that which is likely to follow an acutely inflamed external hemorrhoid, and is readily recognized by the presence and condition of the hemorrhoid. The suffering and pain attending this form of abscess are very acute, and out of all

proportion to its size. It should be incised as soon as seen, whether pus has formed or not, this being the most ready means for relieving the patient's suffering, and the best treatment in any event; for if pus has not formed you have adopted the best plan to relieve an acutely inflamed external hemorrhoid by laying it open, turning the clot out and thus preventing the abscess from forming. You may also meet with a similiar form resulting from an acutely inflamed internal hemorrhoid; here the abscess is formed nearer the mucus than the cutaneous surface, and hence, we are likely to have in these cases blind internal fistulæ resulting, if the abscess is allowed to evacuate itself spontaneously, as the opening in such a case is almost sure to be into the rectum. This form of abscess is readily diagnosed by palpation with the index finger in the rectum, and the thumb pressing on the surrounding external parts, when the induration can be readily felt, even should you not get fluctuation, which is difficult to get on account of the small size of the abscess usually. Warm and frequently applied poultices will help to soothe the pain, but an incision should be made at the earliest indication of suppuration; the incision should be made parallel to the walls of the rectum and about half an inch from the margin of the anus. There is still another variety of superficial abscess which affects the subcutaneous tissues, is diffuse and not circumscribed in character, and consequently much more serious. It is generally due to traumatism, as kicks, falls on the buttock, or long continued horseback-riding; it may also follow one of the preceding varieties, especially in cachectic and debilitated subjects, in whom it shows a decided tendency to burrow. They are attended by considerable pain, redness and induration extending for a considerable distance out on the buttock, and from these symptoms are readily recognized. As soon as fluctuation is recognized it should be freely incised at the most dependent point, and through drainage procured; the cavity should be thoroughly syringed out two or three times daily with a solution of hydrg. bichlor. 1-2000, and the opening kept covered by several thicknesses of muslin saturated with the same solution.

Deep abscesses differ very materially from those just described, in the position they occupy, the gravity of their symptoms and their consequences. To understand their location properly we must call to mind the arrangement of the levator ani muscle, which is stretched across the bottom

of the pelvis from side to side in the form of an inverted tent, forming the floor of the pelvis. These deep abscesses may be just below the levator ani muscle, occupying the ischio-rectal fossa, which is bounded above by the levator ani muscle, below by the subcutaneous tissue, on one side by the rectum, and the other by the lower margin of the pelvic bony rim; or they may be situated just above the levator ani muscle, occupying the space bounded by the superior aponeurosis of the levator ani muscle, the peritoneum above, the rectum on one side and the walls of the pelvis on the other. It will be seen that pus, if left to find its own way out, especially from the last named locality, is likely to give rise to every serious consequences, and even when below the levator ani muscle in the ischio-rectal fossa is likely to cause extensive destruction by the ease with which it can burrow in this locality, and the liability of its opening into the rectum, vagina or urethra. When above the levator ani, you run the risk of having it make its way into the rectum, vagina, bladder or peritoneal cavity, with all the attending evil consequences. If it opens into the peritoneal cavity, of course death will soon follow, if into either of the other cavities the relief is likely to be incomplete on account of the opening being generally above the level of the bottom of the abscess cavity, and we have as a rule at a later date an external opening forming also. Its most probable course when left to itself is to open externally. It should also be stated that in some cases of superior pelvi-rectal abscesses, that is, when it is above the levator ani, the suppuration may extend to the cellular tissue of the iliac fossa, in which case a large quantity of pus is likely to form and may burrow in any direction, sometimes finding its way to and opening at the groin. The causes of these deep abscesses may be traumatism, the injury generally being inflicted from within, as from foreign bodies within the rectum that may puncture its walls, long continued pressure by the foetal head during labor, and it is doubtless frequently caused by the burrowing of the pus from ulcerations in the rectal walls, hence the very frequent occurrence of rectal abscesses and fistulae in tuberculous patients in whom tuberculous ulceration of the rectal walls is common. The symptoms in those cases that occur in the ischio-rectal fossae are quite well marked, almost as much so as in the diffuse superficial variety; pain in the region of the rectum with induration and some redness leave little doubt as to the diagnosis; but when

the seat of the abscess is above the levator ani muscle, the symptoms are rather obscure, there will be pain through the pelvis and in the lumbar region, but not generally very intense, some difficulty in a defecation, with a feeling of unrelief after the act; dysuria and frequently retention of urine and some fever, but it will be almost impossible to arrive at any definite conclusion until the finger is introduced high up in the rectum, when the induration can be distinctly felt, in many instances almost obstructing its passage. As may be inferred from what has already been said with regard to the promptness needed in dealing with these cases, the indication for treatment is well marked, and that is early and deep incision. Upon the occurrence of the first symptom of the formation of pus, such as rigors, or a doughy feeling about the induration, the knife should be inserted; before making the incision the index finger of the left hand should be inserted into the rectum and retained there as a guide during the operation; the knife should be inserted at about an inch from the anus and carried up parallel with the long axis of the rectum, taking care to keep about the same distance from the rectum as the point of exit from the anus, until the pus is reached, at least to the depth of four inches; deeper than that would risk puncturing the peritoneum. While the knife is being introduced it should be several times turned on its own axis to allow of the ready escape of pus as soon as it is reached. The incision should be very free at its point of entrance, several inches in its antero-posterior direction, that the cavity may be kept empty. After the knife has been withdrawn the finger should be introduced into the abscess cavity and all septa that may be found broken down; if there has been burrowing in any direction, the incision should be extended in that direction. The cavity should now be thoroughly syringed out with a solution of hyd. bichlor. 1-2000, a drainage-tube inserted and the cavity lightly packed with lint saturated with the solution of hyd. bichlor.; this should be allowed to remain for a day, when it should be taken out, syringed with the same solution, and repacked; the same to be continued for three or four days until the cavity has filled up somewhat with granulations, when the packing may be left off, but the syringing continued until it has filled up to the surface. During the process of healing the patient should be kept in a recumbent position. The bowels had better be opened well just before or directly after the operation, after which it would be better to confine them for

three or four days, as healing advances more rapidly when they are kept quiet. Cases treated in this manner will seldom if ever result in those conditions to be described in my next paper, fistulæ.—*Maryland Med. Jour.*

Hospital Reports and Clinical Notes.

A CASE OF CONGENITAL CONSTIPATION.

Reported by Chas. Chassaignac, M. D., New Orleans, La.

F. B., a healthy-looking man of about twenty-eight years, has been under treatment for two or three months for syphilis. Having given him large doses of iodide of potassium, I inquired about the condition of his bowels, fearing the remedy might be producing diarrhœa. He replied that his bowels were all right; that they had moved a week ago. Upon my showing surprise he stated that he often went much longer than that without a stool. This leading to further inquiry the following facts were developed: As far back as he can remember he has been of a constipated habit; has, however, always been healthy; does not think he has ever been under a doctor's care before. He has been a painter for ten years; has not been more constipated since working in lead, and *never has had lead colic*. The average interval between movements of his bowels is seventeen or eighteen days. They never remained locked less than two weeks. The longest time he was without stool was *one month and three days*. He was then in his usual good health, but became uneasy at the prolonged intermission and proceeded to purge himself. A dose of oil failed, but a large amount of "senna, manna and salts" had the desired effect; afterward he continued the even tenor of his way. It is too bad I did not then have him under observation. I would have urged him to try and see how long he could remain without an evacuation.

I believe this man is rather to be envied. He is in splendid health; his syphilis has responded beautifully to medication (is it not because none of the medicine has been wasted by passing out too soon?); and think how seldom he is troubled to accomplish a disagreeable duty. In time alone he gains—giving him two operations a month, and allowing a small average of fifteen minutes a day to others for the business—seven hours a month!

For the cause of this condition in the man we can only

say that it may be from the fact of an unusually perfect gastric and intestinal digestion and absorption, leaving very little excrementitious matter, for his stools, when they do come, are not larger nor much more consistent than those of other people, and his diet and habits are not such as to lead to constipation.

Many thoughts suggest themselves as to whether the tendency is not for the race to progress (?) in such a direction. As we lead more sedentary lives, or, at least, walk so much less as means of transportation improve, and the rush of business causes these things to be frequently put off, the rule of one stool a day seems to be fast becoming obsolete. However, this is to be a clinical note and it is already too rambling in character. I have not the time to search literature on the subject, but as Ziemssen thinks it sufficiently unusual to quote from Habershon the case of a lady "whose bowels moved every six or eight days and whose health had been perfect," I think the one I report has several points of interest enough to make it worthy of being put on record.

CASE OF PELVIC ABSCESS.

Reported by J. J. Wray, Interne of Charity Hospital Service of Dr. Geo. B. Lawrason.

Mrs. W., aged twenty-five years, resident of New Orleans, was admitted to the hospital with the following history: Has always enjoyed good health; occupation that of a housemaid. For one month previous to admission suffered from slight pains in pelvic and hypogastric region. One week previous to admission patient contracted a bad cold, followed by chills and fever. The fever continued for three days, when patient was forced to seek rest in the horizontal position; she then had severe throbbing pains in pelvic region, metrorrhagia and nervous prostration. Upon admittance to the hospital, a few days later, the patient had fever ranging from 99° in the morning to 101° in the evening; at times profuse sweatings and chilly sensations, with a weak and rapid pulse. She was nervous, uneasy and anxious; had not taken food or rested several days previous to admission; had considerable nausea; bowels were constipated; had difficult urination and metrorrhagia. Examination over abdomen showed quite a perceptible prominence of abdominal wall in hypogastric region, dullness on per-

cussion and unsatisfactory fluctuations. On examination per vaginam a bulging of posterior vaginal wall, the abscess having pushed the rectum far back into the sacral cavity, the os was dilated sufficiently to admit, for a short distance, the end of index finger. Fluctuation was quite discernible with and without bimanual manipulation.

On June 14, 1887, patient was placed on her back upon examination table, a Sims speculum introduced and the posterior vaginal wall depressed; the needle of a Dieulafoy aspirator was passed through the posterior wall of the vagina into the abscess cavity. After removing over a pint of very thick and offensive pus, the cavity was irrigated until the carbolized water injected returned clear. After this the patient expressed much relief; slept for three or four hours; fever disappeared, pulse improved and appetite better, and up to the 16th symptoms indicated a recovery.

On the 16th she began to complain of pain as before; slight fever, pulse accelerated.

Evening of June 17th temperature 102° ; patient was restless and uneasy; complained of much pain, with a return of all the above symptoms. An examination showed a refilling of pus cavity with quite as great, if not greater, distention than previous to the aspiration.

On the morning of the 18th patient was again placed upon the examination table, and permanent drainage established by making a free incision through the posterior vaginal wall. This allowed the discharge of over a quart of pus, similar in character to that aspirated. A soft rubber drainage-tube was then introduced, and the cavity thoroughly irrigated with strongly carbolized water.

After this the pains and fever subsided; the previous nervousness and restlessness disappeared; sleep returned, appetite improved, patient began a rapid recovery. The cavity was irrigated twice each day with strongly carbolized water, the size of cavity and amount of discharge gradually diminishing.

On June 28th the drainage-tube and irrigation were discontinued; the patient had gained much in flesh; fever had disappeared; appetite was good, and nothing abnormal beyond slight constipation and some induration at the site of abscess. Medical treatment throughout the case consisted of the administration of the tinct. ferri chlorid.

This case illustrates the advantages of free incision, good drainage and antiseptic precautions. We believe the patient

would have died had the use of the aspirator been continued. The incision was made without chloroform.

A CASE OF CEPHALIC VERSION THREE HOURS AFTER MEMBRANES HAD RUPTURED.

By J. J. Wray, R. S., Charity Hospital.

On October 3, 1886, I was called to see Mrs. F., who had been in labor for six hours. She was thirty years of age; had enjoyed good health all her life with the exception of a pelvic abscess after her previous confinement, from which, after free evacuation through the vagina, she had completely recovered. There was great pain in the back; the labor pains were strong, coming on at regular intervals. The vulva was very much swollen, and projecting between the œdematous labia could be seen the left hand and forearm of the child, also swollen. The child was in the dorso-anterior position. The head was easily found in the right iliac region. No foetal heart sound could be heard on auscultation. On vaginal examination the shoulder was found impacted in the superior strait. The history given by the midwife was, that the patient had been in labor for six hours, with strong, regular pains; that three hours before the membranes had ruptured, and that one hour later the hand and arm had projected from the vulva. After some ineffectual attempt at replacement, with the assistance of Dr. B. D. Watkins, the patient was anæsthetized. With difficulty the projecting arm was reintroduced, flexed and swept backward over the chest of the child, and the shoulder shoved upward and to the left, while externally the head was pressed downward toward the median line and engaged in the superior strait. The patient was then allowed to come from under the anæsthetic. Her pains began again, and at the end of an hour there being no progress, and being in an exhausted condition, the forceps were applied and she was quickly delivered of a stillborn child. The recovery was rapid, without any bad symptoms intervening. —*New Orleans Med. and Surg. Journal.*

The Microbe of Cancer.

DR. DOMINGO FREIRE, who claims to have discovered the preventive inoculation of cholera, has recently attempted to demonstrate the microbic nature of cancer.

Freire examined the blood of a cancerous woman and discovered in it zooglea capable of cultivation in gelatin kept at a temperature of from 37° to 40° C., and developing into bacilli 0.011 m. in length by 0.002 in breadth, enlarged at one extremity and resembling the bacilli of typhoid fever. In the cultivation he observed also spores, zooglea and collections of small bacilli, which appeared to be the various stages in the development of the bacilli. Without determining whether he had cultivated one or many varieties of bacteria, Freire concluded that he had found the specific microbe of cancer, and that this microbe passes through two stages in its evolution. The first is represented by the micrococci in zooglea, and the second, more advanced, by the bacilli, which are capable of living only outside of the blood, but are found in the cancerous juice which covers the ulcer. The writer does not mention the cultivation of these latter bacilli, and has apparently not determined whether or not they will produce bacilli like the former. To explain the cancerous cachexia he examined the urine of cancerous patients and discovered a ptomaine, which is very poisonous to birds, causing death with convulsions. But the recent experiments of Gautier and Bouchard show that even normal urine contains poisonous alkaloids, and the progressive development of the tumor in the organs essential to life would explain the cachexia. Freire then inoculated guinea pigs with the cultivation. He produced a slight wound and injected into it a solution containing the germs. At the end of a month one animal died, and the autopsy revealed the presence of a tumor about the size of a hen's egg, located in the left iliac fossa below the fold of the peritoneum. The tumor was soft, and on pressure exuded a viscid substance of about the consistency of brain. This is the most characteristic of all the experiments reported by the author. Microscopic examination of this tumor, as well as of the others obtained, demonstrated that they were encephaloid carcinomata. There were agglomerations of giant cells, and there was no doubt in Freire's mind that the tissue was really cancerous and produced by the inoculation. The experimenter also succeeded in attenuating the cancerous virus by passing it through a number of birds, and the animals that had been inoculated in this manner acquired immunity from the stronger preparations. The investigation demonstrated to a certain extent the nature of cancer, and indicated a

method of treatment for this terrible affection, hitherto looked upon as incurable.

It will be interesting to refer here to the experiments of Gallippe and Landouzy, who communicated their results to the *Sociedad de Biología*. These writers announce that they have discovered micro-organisms in fibroid tumors of the uterus and in ovarian cysts. The parasites are of three varieties: 1, sphero-bacteria in diplococci and in chains; 2, other micrococci, less common, smaller and forming cancer; 3, bacilli, isolated or united, forming threads. They succeeded in cultivating these microbes in warm gelatin, but did not make inoculation, and in consequence no conclusions as to their pathogenetic properties have been reached. These authors compare these tumors with those found at the roots of the teeth, studied by Malassez, and express the opinion that they are both due to the penetration of microbes from the neighboring cavities, the buccal and vaginal. Myomata of the uterus are more frequent than myomata of all other organs combined, and ovarian and radiculo-dental cysts are those most frequently developed. Here, then, is a new field opened up to bacteriologists. Gallippe and Landouzy believe that many animal tumors are absolutely identical in their origin with many vegetable tumors known to be of parasitic origin. This is a legitimate deduction in general pathology, which will sooner or later be demonstrated. The idea of a *neoplastic diathesis*, advanced by Verneuil, is thus reduced to a question of soil and auto-inoculation.—*Buffalo M. & S. J.*, August, 1887.

Chronic Tobacco Poisoning and Its Influence on the Heart and Stomach.

THE following is a review by Duncan Burgess of a series of articles in the *Wiener Medizinische Wochenschrift*, Nos. 11, 12, 13, 14, by Favarger:

Although tobacco contains such a deadly poison as nicotine, and has been for centuries in common use all over the world, it presents a marked contrast to alcohol in the etiology of disease. Amblyopia and certain functional disorders may be caused by tobacco, but no change in the structure of any tissue has been proved to result from its abuse. Our author labors to support Kennedy's opinion "that fatty infiltration or degeneration of the cardiac mus-

cle can be produced by long-continued tobacco smoking." To this end he discusses at length a fatal case which came under his observation. The most valuable part of the paper is a description, illustrated by short notes of nine selected cases, of the symptoms observed in patients addicted for decades to excessive smoking.

The symptoms of acute tobacco poisoning are due to nicotine. Amblyopia, however, has not been observed to follow poisoning by pure nicotine. It is, therefore, possible that chronic tobacco poisoning may differ in some respects from chronic nicotine poisoning. Picoline is said to paralyze the central and peripheral parts of the nervous system, and although picoline, pyridine, and other bodies, of which tobacco contains but traces, are neglected in acute poisoning, it is conceivable that they may in time exert some influence on those who habitually smoke to excess.

Dr. Favarger's observations were made on cigar and cigarette smokers. His patients generally smoked at least a dozen cigars a day, and it took not less than twenty years to develop symptoms of chronic tobacco poisoning. In a female, cigarette smoking may cause symptoms in a shorter time, for one of the recorded cases is that of a married lady, twenty-eight years of age, who smoked thirty cigarettes daily. The diagnosis was usually suggested by complaints of palpitation of the heart, and it was clinched by forbidding smoking. "*Cessante causa, cessat morbus.*" Often the warning given by palpitation was neglected, and, in due course, symptoms of a "weakened heart" made their appearance. The previously robust man became suddenly incapable of severe bodily exertion, on account of shortness of breath and sensations about the heart. If excessive smoking were still persisted in, the victim became liable to attacks of cardiac asthma. True angina pectoris was observed in one only, and that a doubtful case. Examination of the heart gave negative results in many cases. The area of cardiac dullness was either normal or moderately increased, and it was often difficult to feel the apex beat. The pulse was feeble, irregular in character and rate, being intermittent, dicrotic, or generally disorderly, and varying from 60 to 160 beats a minute.

The gastric and nervous symptoms were sensations of fullness and distention of the abdomen, pain and tenderness in the epigastrium, disordered digestion, irregular action of the bowels, faintness, disturbed sleep and insomnia.

The case completed by an autopsy was that of a male sixty years of age, who had for several decades habitually smoked an excessive number of Havana cigars. When a younger man he had several attacks of faintness after smoking many strong cigars, but of late years his health appears to have been pretty good. Ten days before Dr. Favarger saw him he was suddenly seized, while smoking a cigar after dinner, with dyspnœa, so severe that those about him thought he would be suffocated. The urgency of the attack passed off, but considerable dyspnœa persisted. When the author examined him the temperature was subnormal, the pupils contracted, the pulse small, but though he smelt of tobacco, no nicotine was detected in the urine. During the last ten days of life the pupils remained small and reacted sluggishly; the temperature ranged from 34.6 to 35.5; the radial pulse continued small and very quick (140 to 100) except under the influence of digitalis, when it fell to 60. The respirations were about 30, and of the Cheyne-Stokes type. A week before death the stools were like coffee grounds. On the twenty-first day of the illness the patient died with symptoms of internal hemorrhage. Post-mortem revealed a dilated fatty heart, and a chronic gastric ulcer with open artery on its base.

[The past history in this case gives but slight indications of recurring attacks of nicotinism or chronic tobacco poisoning. The after-dinner distention of the stomach, about which no remark is made, had doubtless more to do with exciting the fatal illness than the cigar which the patient happened to be smoking. The state of the pupils, the quick pulse, subnormal temperature, and other symptoms observed during the fatal illness, can not be separated from the patient's age, his dilated fatty heart, and gastric ulcer.

The only question opened up by the case is this: Was the connection between abuse of tobacco and the state of the heart casual or causal? In the absence of alcoholism, chronic anæmia, atheroma, calcification or sclerosis of the coronary arteries, endocarditis, pericarditis, and other conditions predisposing to fatty heart, the author is certainly justified in attaching some importance to the presence of such a likely etiological agent as tobacco. His argument that nicotine, by influencing the trophic functions of the vagus, by contracting the coronary arteries, and possibly by a direct action on the cardiac muscle, may powerfully influence the nutrition of the heart, is theoretically plausible.

He quotes the authorities to prove that pathological changes in the vagi may produce fatty degeneration of the heart; but the only fact ascertained about the condition of these nerves in his own patient, viz.: that they responded to the action of *digitalis*, he ignores.]

Ulcerations of the Rectum.

BY C. B. KELSEY, M.D., NEW YORK.

ANOTHER very common cause of ulceration is the infliction of a surgical injury, and this may be of many different kinds. One of the most intractable I ever encountered, was caused by the efforts of a brother practitioner to induce a simple fissure to heal, first, by frequent applications of solid nitrate of silver, and then of fuming nitric acid. The most numerous of this class of cases is that due to the various operations for hemorrhoids in which the patient is allowed his liberty too soon after operation. The variety of operation makes very little apparent difference, for the wounds caused by any of them may become sluggish and refuse to heal unless carefully watched, and sometimes treated by stimulating applications. I have had many of these cases from the practice of others, and I have but just gratefully seen the last of a patient of my own, who, contrary to express advice, disappeared from my observation on the twelfth day, and came back four weeks later to know why my operation had been such a failure. Of course, no man is responsible for the loss of reputation which may follow such a case, but the moral is very plain, and is simply to warn patients before operating that, although they may be up and attending to business in a very few days, they will not be entirely well in less than three weeks. I have fortunately never operated for piles and had the wounds refuse to heal kindly and promptly under suitable care; but I have spent months trying to secure cicatrization in cases which have either been wrongly advised or have failed to follow the advice given by the operator.

An ulcer of the rectum not infrequently follows an incomplete operation for fistula, and *will never heal till the fistula be cured*. In the *New York Medical Journal* for August 7, 1886, I reported such a case in full, and I have another under treatment now. The ulcer may not be large or deep,

but somewhere, either in the bottom or under one edge of it, there is the mouth of a blind internal fistula which is keeping up the trouble, and which no amount of treatment of the superficial sore will in any way affect.

Finally, I have twice within a month distinctly recognized a form of disease about which I used to be somewhat skeptical. In the lower part of the bowel, just within the sphincters, there has been a small hole only large enough to admit a probe, and the probe dropped into this has run along under the mucous membrane an inch, revealing a distinct undermining of tissue. In both these cases the only symptom has been pain, but pain sufficient to keep the patient constantly under treatment—in one case for seven years. Such a condition can only be discovered by the most careful and thorough examination, which should be under ether, for the sake of the searcher's reputation as well as sparing the suffering of the patient.

The question at once arises, how to be sure of the presence of ulceration above the sphincter which has not invaded the superficial parts, is not attended by stricture, and has none of the well known signs of malignant disease. In other words, a patient has a circumscribed spot in the rectal pouch the size of a quarter of a dollar where the mucous membrane is destroyed and the muscular tissue exposed—what are the symptoms and the physical signs, and how is it to be found?

I will say at the start that it is not to be found by buying a new rectal speculum—the almost immediate resort of the young practitioner. Such a condition invariably causes a train of definite symptoms sufficient at least to indicate that it may be present; and these symptoms may be elucidated by careful questioning and examination. If there be no hemorrhoids, there is no history of protrusion at stool; and if there be no external fistula, the skin around the anus is normal. Two things are at once eliminated, and the careful examination of the margin of the anus shows the absence of fissure. The finger in the rectum eliminates stricture, cancer and coccygodynia, and in this way seventy-five per cent. of all rectal diseases are placed out of the question.

And yet the patient complains of one or all of the following symptoms: He has pain in the rectum, decided pain, sometimes almost constant, but often intermittent, and generally increased by defæcation. The pain may be only local, or it may be reflex in the feet, loins or testicles. I

am not sure that I have not seen one case where it was distinctly in the trigeminus, but I do know that I have cured a most obstinate trigeminal neuralgia by curing an ulcer in the rectum.

Pain may or may not be the only symptom depending on the size and nature of the ulcer. If the latter be large and secreting freely, there will be some discharge of blood and pus from the anus, both at stool and during the day. If it be still larger, so as to keep up a constant tenesmus whenever any fæces come in contact with it, there will be morning diarrhœa and passages, at first of dark, partially decomposed blood, and then of fecal matter, till the sigmoid flexure is emptied; after which the bowel will remain comparatively quiet, perhaps till the next morning, or at least until fresh fæces come down into the rectal pouch. Another point about this pain is that by gentle examination it can be localized. The finger is introduced and held quietly till the sphincter adapts itself to the foreign body. The end is then gently swept around the whole circumference of the pouch, and if the ulcer be touched the patient will know it by the increased suffering. Now if the touch be sufficiently educated, and the loss of tissue or induration sufficiently marked, the ulcer may be marked out; or on withdrawing the finger the end may be found smeared with blood.

Up to this point the examination has either shown ulceration, or it has been probably purely negative, and in neither case is it complete. In the former the disease needs to be seen as well as felt, and in the latter its absence is still to be positively established. The only way of doing either is with the speculum.

The Mask Torn Off.

[WE herewith copy an article from a recent number of the *American Lancet*, published at Detroit. We have omitted here and there a paragraph that did not seem necessary in expressing the views of the writer. By so doing we have not detracted from the article, while we have economized space.—ED. MED. NEWS.]

“There are a large number of physicians who, for both therapeutics and materia medica, depend largely—if not mainly—upon the traveling salesmen and their pamphlets and lists, and on the advertising pages of the medical jour-

nals. The relations of this class to their supplies is most simple and most favorable. They come in very direct and very close contact with the sources of their supplies, and have much less trouble than any other class of artisans. With others smarter, more ingenious and more plausible than they, to think for them, and then to apply vigorous mercantile principles to their wants thus suggested for them, they have the least practicable amount of thinking for themselves to do, in regard to their remedies and the novelties of the day, and therefore, as they argue, more time to think and study out their cases. To this class the ready-made prescriptions in the form of beautifully colored and coated pills, or palatable solutions and mixtures, do not appeal simply as gratifying various degrees of laziness, or indisposition to think for themselves, but they present themselves as true labor-saving devices, skillfully prepared for the overworked ability to use them, and as giving more time for the higher and more scientific reaches of the profession."

Dr. Squibb has long held an honorable place in the esteem of the pharmacists and physicians of this country. In the double role of manufacturing pharmacist and scientific physician, Dr. Squibb has for many years occupied a large share of the attention of medical and pharmaceutical associations, and has assumed to present his *ipse dixit* as the Ultima Thule of all medical and pharmaceutical knowledge.

We find that the chief reason why he enjoys the enviable position he has long held is because he has succeeded in creating the impression that his work as a manufacturing pharmacist is disinterested, uncontaminated by any suspicion of mercenary intent, and for the benefit of medicine and pharmacy, rather than Dr. Squibb.

Having the *entrée*, as a physician, to medical societies, he now used every opportunity that presented to create in the minds of the medical profession the impression that the market was flooded with impure pharmaceuticals; that other manufacturing pharmacists were not to be trusted, and that the only protection for physicians against imposition was to prescribe Squibb's products. To the attacks of Squibb other pharmacists had no opportunity of replying before the societies to which they were addressed, since they did not enjoy Squibb's unique privileges as a member.

Established, then, in the good favor of the medical pro-

fession, and with his unusual opportunities for advancing the interests of medicine, what has Dr. Squibb accomplished? Which step in the progressive march of medicine in the last decade has he taken? Has he enriched the materia medica by a single discovery, the result of his own research? Can his most ardent admirers point to the expenditure of a single dollar for the enrichment of the science to which he professes to be so interested a devotee? We think not. On the contrary, he has systematically sought to throw cold water on every new therapeutic agent that the labors of others have discovered, and in his condemnation of them has often displayed gross ignorance of the value of drugs which he has subsequently been compelled to add to his list to meet the demands which the enterprise of other pharmacists, and the proven excellence of the drugs themselves, had created.

Examples of this characteristic can be multiplied, but as illustrations of Squibb's lack of knowledge, and inconsistency, and his dog-in-the-manger spirit, we need only mention his cocaine fiasco and his recent remarkable, absurd and conflicting statements about cascara sagrada. In the former case, that of cocaine, we quote from his organ, the *Ephemeris*, Volume II., page 599 *et seq.*:

"The writer for more than a year past has seen but one or two small lots of moderately good coca, and in common with other buyers has been obliged to buy the best that can be found to keep up his supply of the fluid extract. . . . He has been ashamed of every pound of the fluid extract sent out. . . . The character of coca as a therapeutic agent is not very good. . . . The writer has finally decided to give up making a fluid extract of coca, adopting a fluid extract of tea instead as a superior substitute. . . . The testimony in regard to the effects of tea, coffee, Paraguay tea, Guarana and Kola nuts is all of a similar character to that of coca. Each of these substances has seemed to come into use independently in widely separated countries to produce the same effects. . . .

"It is now still more curious, however, to find that for centuries another plant, viz.: coca yielding a different principle, has been in use for similar purposes, the effects of which differ as little from those of tea, coffee, etc., as these do among themselves. Yet cocaine is chemically very different from caffeine, simply producing a similar physiological effect in much smaller doses. All these substances in

their natural condition seem to be identical in their general physiological effect."

Soon after this followed the grand discovery and announcement by Koller of the anæsthetic action of cocaine, which has given this remedy so commanding a place in the *materia medica*, and awakened renewed interest in the valuable tonic and stimulant properties of its source, *Cocac erythroxylo*n.

This exhibition of lack of knowledge on Dr. Squibb's part, one would have fancied, would have taught him modesty, if not, indeed, to hide in shame his diminished head; but without apology for the incorrectness and absurdity of his published statements, he calmly adds cocaine to his list, and probably being unable to make a pure product (it has been demonstrated that Squibb's cocaine is inferior to the product of that of several other manufacturers), rushes into print with the statement that the amorphous, or impure, variety is equally as good, and possesses as great anæsthetic power as the pure crystalline product—a statement which has been emphatically disproven by the experience of oculists and others, who have observed the irritating effect of the amorphous variety on the more delicate membranes.

In substantiation of this we again quote from the *Ephemeris*. Referring to the amorphous and crystalline varieties, which he distinguishes by the terms easily crystallizable and difficultly crystallizable, in the January number, page 909, Squibb says:

"The reason why the writer does not offer them* for sale, is that they have no therapeutic advantages; next because the difficultly crystallizable part of the salt would either have to be wasted, and thus very much increase the cost of the easily crystallizable portion, or have to be sold in the granular crystals, thus making the complication of two kinds of salt from one maker without discoverable difference in therapeutic value between them."

As to the puerility of the excuse presented by Squibb for not supplying the pure crystalline product, and as to the truth or falsity of his statement that the imperfectly and perfectly crystallized product are of equal value therapeutically, we will leave our readers to judge. Certainly in view of such statements, however, no unprejudiced person

* By them he means the difficultly crystallizable or pure crystals.

can longer regard, as has heretofore in many quarters been the case, Squibb's assertions about drugs, like Cæsar's wife, above suspicion.

We would have to coin a word to describe accurately Squibb's attitude in relation to cascara sagrada. It is certainly unique, and, if we may be permitted the use of the word, truly "Squibbian" in its inconsistency. Is cascara sagrada a valuable tonic laxative in chronic constipation, or is it not? Who, in the face of the recorded experience of thousands of able observers; in the face of the fact that it has been made officinal in the British Pharmacopœia, that medical literature for the past ten years has teemed with reports of its efficacy, could have had the bravado to condemn it, or at least decry its value on the strength of mere assertion unsupported by the citation of a single case? No one but a supreme egotist, and yet this is just what Dr. Squibb has done.

In the October (1887) number of the *Ephemeris*, page 984 *et seq.*, appears an article on cascara sagrada. We should preface the quotations we make from it by the explanation that Squibb has refused until quite recently to add cascara sagrada to his list, claiming that it possessed no medicinal virtues over other well known remedies already appearing thereon. He now adds it to his list, however, and at a price which can afford him no margin of profit if the product he offers be a genuine one. That his object, however, is not in this instance commercial enterprise, a desire to meet the demands of his customers, or to obtain the legitimate profit of the manufacturer, but by contrasting cascara sagrada, which he has not had on his list till recently, with *Rhamnus Frangula*, which he desires to make a specialty of to the disadvantage of the former to selfishly advance his own interests, regardless of those of pharmacy or truth, will be apparent to the reader from the following quotations, which we excerpt from the article alluded to.

Dr. Squibb says:

"*Rhamnus Purshiana* is a sub-variety of the buckthorn family, which grows in most of the temperate climates. It grows abundantly in California and Oregon, and the bark, under the name of chittem bark, or cascara sagrada, has been long used as a purgative. Some years ago it was taken up and pushed as a novelty, and by vigorous advertising as a panacea for numerous ills, it has come into very

common use in the form of several pharmaceutical preparations."

What, may we inquire, does Dr. Squibb mean by the assertion that cascara sagrada has been long known and used as a purgative? He is speaking now as a scientific writer to the professions of medicine and pharmacy, and desires, we think, that the inference should be drawn that cascara has been long known to these professions; that, therefore, there was no originality or merit in its introduction.

As a matter of fact, though somewhat used as a popular remedy in the sections to which it is indigenous, cascara sagrada was virtually entirely unknown to the materia medica, as far as its general use was concerned, prior to its introduction to the profession in 1877 by Parke, Davis & Co.

By the statement that it was pushed as a novelty, doubtless Dr. Squibb seeks further to discredit the drug, and to intimate that those identified with its introduction, merely by vigorous advertising sought to elevate into prominence a remedy already well known to the profession. In the light of the facts that prior to 1877 there was probably not a pound of cascara sagrada prescribed by physicians all over the world, while at the present time the consumption may be estimated at many thousands of pounds, the absurdity of such an intimation is apparent.

Dr. Squibb further says in the article last quoted, that "by advertising cascara sagrada as a panacea for numerous ills it has come into very common use," directly implying that this remedy was unscientifically advertised as a cure-all. Is this the case? A careful examination of the advertising pages of the medical journals of this country, through the medium of which this remedy has been brought to the attention of the medical profession, will disclose the plain, unvarnished fact that in every advertisement of this product it is uniformly and persistently advertised, not as a panacea, but as a tonic laxative in chronic constipation, and for the relief of those ills immediately dependent upon chronic constipation. This statement of Dr. Squibb is, therefore, an untruth.

Dr. Squibb, we presume, to justify his action in refusing for so long a time to add cascara sagrada to his list, now endeavors to show that it is either inferior as a therapeutic agent, or at least not superior to *Rhamnus Frangula*. In alluding to the comparative value of *Rhamnus Purshiana* and *Rhamnus Frangula*, he says:

“When properly used both are simple, mild, agreeable aperients, but the buckthorn is the more simple and agreeable of the two, and required in somewhat larger quantities to give the same effect. Hence one is superfluous in the *materia medica*.”

If Dr. Squibb's assumption that *Rhamnus Purshiana* and *Rhamnus Frangula* were of equal value as laxatives were correct, which assumption is certainly not justified by the experience of those who have used these agents, the fact which Squibb specifically states, that *Rhamnus Frangula* is required in somewhat larger quantities to give the same effect, would answer his query as to which one of these preparations is superfluous in the *materia medica*. As all scientific physicians must admit that given two remedies of equal therapeutic value, and all other things being equal except that one requires to be given in larger bulk than the other to produce the same effect, the one of which the lesser quantity is required is certainly to be preferred.

In a further paragraph in this same article, Dr. Squibb intimates that the medical profession have been influenced or prejudiced in favor of *Rhamnus Purshiana* over *Rhamnus Frangula* by the “florid advertising” which the former has received. The plain inference from this statement is, that in Dr. Squibb's opinion, the judgment of the medical profession of this country of the value of a remedy is determined, not by their experience in its use, but by florid advertising.

The absurdity of this claim, when it is considered that *cascara sagrada* has been made the subject of investigation by many of our most scientific men and favorably reported upon, is conspicuously apparent. Equally apparent is the motive of Squibb in making this unjust statement. He desires to create the impression which will redound to his own advantage, that all manufacturers but himself are unscrupulous, that the remedies other manufacturers offer to the medical profession are foisted upon them regardless of merit, through florid advertising.

It would appear, however, that failing to maintain a market for his pharmaceuticals at the higher prices, and envious of the encroachments made upon his trade by his competitors, he has spitefully and maliciously tried to regain his lost ground by an endeavor to break the market on certain products, *e. g.*, offering *coca* and *cascara sagrada* at prices at which a first quality product could not be made at a profit.

All those who have at heart the progress of medicine and pharmacy will admit, that if the legitimate profit of the manufacturer is taken from him, the natural incentive to the development of the *materia medica* is removed. Squibb has, in the dog-in-the-manger spirit so characteristic of him, dealt a blow at the two sciences, to the interests of which he professes to be so faithful. Observe the inconsistency and evident malice of his course as illustrated in his action in relation to *coca* and *cascara sagrada*. First he repudiates *coca*, but being forced to retire from this untenable position, he disparages the quality of the crude drug in the market, and in the same breath denounces as exorbitant the prices of his competitors, who do not use the inferior product that Squibb complains of, but one obtained at much greater pains and cost. In other words, being unable himself to make a good product, he seeks to create the impression that there is none such, and cuts the price of cocaine so that there is no longer a margin of profit in a pure article, and thus seeks to justify his position.

In the case of *cascara sagrada*, Squibb pursues a similar course. First he refuses to add *cascara sagrada* to his list. When forced to do so by the demand for it, how does he proceed to justify his inconsistent course? As in the case of *coca*, so with *cascara sagrada*. He seeks first to prove the inferiority of *cascara sagrada* to some other remedy (*Rhamnus Frangula*, in which he is more directly interested). He condemns the quality of the crude *cascara sagrada* on the market, alluding to the difficulty of obtaining supplies of the smaller quill bark, which he states should alone be used. In the same paragraph he flatly contradicts himself by stating that "both barks are very plentiful and very cheap, and good qualities are easily obtainable of either at a cost of not more than eight or nine cents per pound by the bale."

To make the comparison of his actions in the case of *cascara sagrada* and *coca* complete, he now cuts the price of the fluid extract of *cascara sagrada* to a point at which, if the best quality of the crude drug be used, it can not be sold at a profit. The animus of his statements about *cascara sagrada* and cocaine, however, not alone show that Squibb is not the disinterested scientist he pretends to be, but is maliciously trying to undermine his competitors in the trade, and to advance his own selfish interests, though

by so doing he stultifies himself. Let us allow his own words to further speak for themselves.

Certainly these oft repeated attempts of Squibb to vilify his competitors, and to plume his own products as the only balm left in Gilead for the duped profession, can not in the minds of all fair-minded men, but throw from him the lion's skin in which he has been masquerading for so many years, and disclose the asinine features beneath. We can account for Squibb's inconsistency, for this railing at his competitors, his absurdities, only on the ground assumed by a number of medical editors in commenting on his recent reflection on legitimate medical advertising, viz.: by assuming that his fulminations are "the offspring of envy" or "the garrulousness of old age."

The Value and Proper Use of Arsenic in Skin Diseases.

DR. GEORGE ROHE, of Baltimore, by invitation, recently read a paper on the above subject.

He cited experiments to show that arsenic modifies especially the nutrition of tissues derived from epiplastic layer of the embryo, the skin and nervous system. The fact that it produces hyperæmia of the skin renders it inappropriate in most cases of acute inflammation, such as *acute* eczema. But in *chronic* eczema, especially its papular and scaly forms, and in the pustular form occurring on the face and scalp of strumous children, combined with iron and cod-liver oil it is useful. In pemphigus, arsenic acts as a specific. It is a sovereign remedy also in psoriasis. Of course, use the local remedies in addition. Arsenic acts as a tonic in syphilitic eruptions, but it is of limited value in acne, most cases of the pustular form being made worse by it. As an exception, however, it often acts like magic in menstrual acne in young women. In the rare disease in this country, lichen ruber, arsenic maintains the reputation given it by the elder Hebra. Dr. Rohé uses in appropriate cases, two preparations: arsenious acid in substance, and the solution of arsenite of potash. Arsenic often fails to do good until after some preparatory treatment. To children he generally gives small doses of calomel every three hours for three or four days. Then two or three drop doses of Fowler's solution two or three times daily, increas-

ing the dose by a drop or so daily until its physiological effects are produced, soon accomplish all the good that it is capable of doing. The dose is diminished then according to circumstances. He rarely continues the mercurial preparatory treatment in adults more than a couple of days; then he gives the following for ten days, the diuretic action of which seems to prepare the system to derive the fullest benefit from the arsenical course:

R _x	Potassii acetate,	.	.	.	5j.
	Ex. taraxaci fl,	.	.	.	5j.
	Aquæ, q. s. fit.,	.	.	.	5ij.
	M.				

S. Teaspoonful in a tumblerful of water, three times a day, a half-hour after meals.

When ordering arsenious acid in substance, he prefers tablet triturations of about $\frac{1}{50}$ grain each; more frequently, $\frac{1}{100}$ grain each. He generally precedes a dose to be taken between meals by a glass of milk. In this way, he has given a $\frac{1}{4}$ grain of arsenious acid daily for two months without any unfavorable effect. He directs Fowler's solution with sherry wine or cinnamon water; or for children, equal parts of simple syrup and cinnamon water. As long ago pointed out by Mr. Hunt, the smallest toxic dose of arsenic is fifty times as large as the average medicinal dose. Hence the dangerous poisoning by medicinal doses of arsenic is exceedingly remote; and further, cumulative effects need not be feared, as the drug is rapidly eliminated. He sums up, that arsenic, properly used, is a most valuable means of combating certain skin diseases—most prominently, papular eczema, psoriasis, lichen planus, and pemphigus; that when intelligently used it is not toxic, and is harmless, and that it is rapidly eliminated from the system, and hence can not act cumulatively as a poison. Appropriate local treatment is, of course, to be used in every case.

Etiology of Zymotic Diseases, was the title of the next paper, presented by Dr. M. A. Rust, of Richmond, Va. Papers were also read, eliciting more or less discussion, by Dr. Wm. A. Hammond, of New York, on *Coca, and the So-called Cocaine Habit*; Dr. Charles M. Shields, of Richmond, Va., on *Advances in Ophthalmology, Otology and Laryngology*; Dr. Joseph A. White, of Richmond, on *Sore*

Throat and Accompanying Nasal Troubles; Dr. G. S. Conrad, of Mattly Hill Sanitarium, on *Moral Insanity*; and cases of some interest were reported by Drs. Wm. D. Hooper, of Liberty, Va., R. B. Stover, of Richmond, and E. M. Magruder, of Charlottesville.

The social events of the session were a complimentary entertainment at the theater and a banquet by the Medical College of Virginia, receptions by Drs. Hunter McGuire, Joseph A. White and Charles M. Shields, and a banquet by the Profession of the City of Richmond.

Microscopy.

The Comparative Size of Blood Corpuscles in Man and Domestic Animals.

BY FRED A. DETMERS, B. SC., OF COLUMBUS, O.

Paper read before the American Society of Microscopists, at Pittsburg, Pa., September 1, 1887.

EVER since the Hayden murder trial (October, 1879,) in Connecticut, the subject of the comparative size of the blood corpuscles of man and animals has awakened greater interest in the minds of microscopists and medico-legal experts than it had before, and by many it has been made a special work.

The point of difference about which discussion centers itself is, that some investigators attribute to the microscope the power to distinguish between the blood corpuscles of human beings and those of animals, especially of the dog. There are others who take the opposite ground, and say that no such distinction can be made.

That the investigation is of great importance, must, I think, be admitted by all; as yet, however, no definite results have been obtained. Thus far, each one has to rely on his personal experience and investigation into the subject.

With a view to ascertain whether there is, or not, an essential difference as to size and outline between the blood corpuscles of man and some of our domesticated animals, I determined to investigate the subject for myself.

In order that my measurements could in no way be influenced by the results obtained by others, the reports published from time to time were not studied until my measurements were completed.

Of the ten specimens of blood examined, all were taken from live animals, with the exception of that of the new-born rabbit, which had been dead but a few hours. The cat was under the influence of chloroform when the drop of blood was taken, and the blood of the new-born child was taken from the umbilical cord, and was obtained through the kindness of a physician.

All the slides were prepared under the same circumstances and in exactly the same way, viz.: by putting a small drop of blood on a perfectly clean slide, near the edge, then passing this slide, drop downward, gently over another perfectly clean slide, and thus spreading the drop of blood over the surface of the latter in a uniformly thin layer. When this was dry, a ring of shellac was run on the slide; then a perfectly clean 6 8th inch cover-glass, 90 mikra in thickness, was carefully placed on the ring, and when this was dry, a ring of shellac was run around the cover.

The instruments used in the examination of the blood were Bulloch's professional stand with mechanical stage; Tolles' 1-15 homogeneous immersion objective, corrected at 1; numerical aperture, 1.30; Bulloch's No. 9 eye piece, with cobweb micrometer; W. A. Rogers' stage micrometer, divided in 1-100 millimeters (10 mm. or 1001 lines) and in 1-2500 inches (2 5 inches, or 1001 lines); an Abbe condenser made by Bulloch, and used with a small diaphragm; a common coal oil lamp.

In all the measurements the objective was corrected at 1; cedar oil was used as an immersion fluid, and the same length of tube, 238 mm., as also the same optical tube length was maintained.

It is true that with the high amplification I used—1700 diameters—no objective, however good, brings out the outline of the corpuscles as sharp as a mathematical line. Judgment must be used as to how much of the so-called "shadow" surrounding the corpuscle shall be included in the measurement of the corpuscle and how much shall be regarded as shadow. Then again the cobwebs of the micrometer have a certain thickness. This is, however, a much more accurate means of determining the actual size

of a corpuscle than by using the glass micrometer, and then guessing at the exact size, where it can not be measured.

On each slide the corpuscles which were approximately in the center of the field as the slide was moved from right to left, were measured. Those that were higher or lower than about one-fourth the diameter of the field were not measured, because the focus of the outline of these corpuscles above or below a certain distance from the center is never fully as sharp as those in the center, and in bringing them to the stationary cobweb, into a position where they can best be seen, the slide must needs be moved up and down, as well as sideways. In doing this, confusion would arise as to which had been and which had not been measured. Of the corpuscles in the center of the field, only those were measured which appeared to be approximately round; those showing a marked irregularity in shape were skipped.

One hundred corpuscles on each slide were measured, the measurements taken in divisions of the eye-piece micrometer. Each measurement, as soon as read off, was recorded in the tables accompanying the thesis.

Only the average size of the whole one hundred, and that of the largest and smallest corpuscles were reduced from these divisions to mikra, 21.16 of these divisions, with the optical apparatus employed, being equal to one mikron. This is the result of many measurements of Rogers' stage micrometer.

The measurements were not reduced to inches, because the mikron is accepted by the American Society of Microscopists as the standard microscopical unit, and as such it is also recognized all over Europe.

The photographs were taken so as to include as many as possible of the corpuscles that were measured. These can be measured on the negative, and by this means the first results can be verified.

In making the photographs, I used a Blair camera, Bulloch's professional stand, Tolles' 1-15 homogeneous immersion objective, corrected at 1; Beck's No. 1 eye-piece (approximately a two inch eye-piece); an Abbe condenser, made by Bulloch, used with a small diaphragm; a large bull's eye condenser, made by Bausch & Lomb; a coal oil lamp with a flat No. 3 burner; Seed's 5x7 dry plates, sensitometer 21. Time of exposure eight minutes. Exactly

the same length of tube and same length of camera were used for all the photographs, and as Rogers' stage micrometer was also photographed with precisely the same appliances, the exact amplification, which is 1040 diameters, could be easily measured on the negative.

After carefully examining the specimens of blood, I feel that I can assert without fear of contradiction, that there can be no question but that the blood of human beings can readily be distinguished from that of such animals as the mule, cat, calf and horse, and more readily from cattle, sheep and pigs. As there is so marked a difference, I have thought it necessary to examine only the blood of the first three, and to record the results obtained.

The blood corpuscles of these animals are not only on the average much smaller, but the largest corpuscles measured are smaller than those of but an average size of the human blood. This can easily be seen by referring to the tables of measurements, and also to the photographs.

Between the blood of the rabbit, dog and man, finer discrimination must be made. Although the average size of the blood corpuscles of the two former is smaller than that of man, the difference is not very great. It may be, however, that by further investigation, by examining other specimens of the blood of these animals, this difference may be found to be a permanent one, and again we may find it greatly diminished. A much more thorough and extensive examination than I have been able to make here, must be made before a difference can or ought to be established with certainty.

It is a much simpler matter to distinguish between the blood corpuscles of a very young and a full grown animal of the same species than it is to distinguish between those of the full-grown rabbit, dog or man. The blood corpuscles of very young animals lack symmetry of outline and show a marked inequality of contour. Only the minority of the corpuscles are approximately round, and these round ones are chiefly those which are more or less isolated on the slide.

A noticeable feature in this connection, discovered in these examinations, is that almost invariably the largest corpuscles are found where the corpuscles are scattered; and in a field where they are numerous and close together the general average also is smaller.

The greater size of the blood corpuscles of young ani-

mals, their want of symmetry in outline, and want of roundness, can all be explained, if we assume that they are less dense, and hence softer, than those of older animals. And it seems that the manner in which the slides were made, brought to bear a greater pressure on these softer corpuscles than they could resist, and hence they became spread out, showing distortions which are rarely found in the blood corpuscles of older animals, which we must assume have become more dense and compact as the animal grew older.

In the specimens examined of the blood of the old dog and of the full-grown person, there is certainly a difference in size as to the average, and also as to the largest and smallest corpuscles. So if in, suppose, a criminal case, it should be claimed that a certain specimen of blood is that of an old dog, it might be determined without much difficulty whether it was human or dog's blood. But suppose it was claimed to be the blood of a young dog, one still entitled to be called a pup, then it would be almost impossible to determine which it was, if one expected to decide the question by the difference in size only.

For although there is a very marked difference in the sizes of the corpuscles of a young and an old dog, the size of the corpuscles of a young dog corresponds pretty closely with those of a grown person.

Thus, as to size, we might be at a loss to say which it was, but a decision might be arrived at thorough further investigation, as by employing other means than those of measurement only; here the difference in contour and apparent density would be an important point.

The largest corpuscle, 12+ mikra, found in the specimen of child's blood, is very much larger than any yet found, but the average of the one hundred corpuscles measured is smaller (to however so slight an amount that it may be due to some mistake in the measurements) than the average of the young dog's blood. I would, therefore, pronounce it impossible, on the strength of the measurement made, to distinguish between the young child's and the puppy's blood.

But even with all the data here furnished, to look at the matter carefully from all sides, it would indeed be rash, and in many cases criminal, to arrive at a final conclusion. The investigator must be expert, exact, and must have had experience in this work; and not only that, but he must be

conscientious as well. It will not do to take for granted that the average size of the entire quantity of blood corpuscles in any one animal, and much less the average size of the whole quantity in all the animals of one species, corresponds exactly to the average size of the one hundred corpuscles taken from a single drop of blood.

Of course, it is utterly impossible to measure every corpuscle in the blood of an animal, but a thousand or more should at least be measured before the mere hypothesis, that there is a well-defined difference between the blood corpuscles of human beings and those of some of our domesticated animals, can be established as a fact.—*St. Louis Medical and Surgical Journal*.

THE MONAS DALLINGERI.—In his late lecture, Dr. Dallinger informed his audience that until he found the monas, it was unknown to science. Measured cubically, it is the seventy thousand-millionth of a cubic inch. It is a long oval with a motile fibre. The egg-like body is clear, and, to our means of analysis, structureless; and, in the minutest speck of the fluid, thousands are present. Their motion is quick, definite and graceful. While in full motion, a change of form, which is somewhat uncertain, takes place from a minute to ninety seconds, and then the motion becomes slower. The flagellum or motile-fibre becomes sluggish in its movement, and falls off. We then have a still flattened globule. In a few seconds there appears in it suddenly and vividly a white cross forming two diameters at right angles. Almost immediately afterward another cross appears, so placed in relation to the first that they together constitute eight radii proceeding from a common center. This complete, the whole interior substance of the living atom is in a state of movement, which results in its being broken up into a large number of bodies that glide for some minutes over each other, but retain, as a mass, the globular shape. This suddenly breaks up and sets free a large number, usually thirty-six, relatively small forms, exactly like the original body, of which they are now independent, living parts—the thirty-sixth part, in fact, of the primal organism. But they are intensely active, and, as they absorb and digest everywhere, and live in their food, they rapidly reach the normal full-grown size; but no sooner is this done, than each of these goes again through the same process, and thus

the organism multiplies by this means alone in a ratio that is simply astounding. The human population of the globe is immense; yet one of these organisms starting to divide in this way at any given moment, would, in three hours, have given origin to a host that would equal it.—*Phar. Journal.*

Gleanings.

ANATOMICAL CHARACTERS OF SCARLATINAL NEPHRITIS.—Dr. Frank Grauer, of New York, reviewed the post-mortem renal conditions of the initial catarrhal nephritis of scarlatina, and those which are found in the large flabby hemorrhagic kidney which belongs to septic inflammation. But he had more particularly studied post-scarlatinal or Klebs' acute glomerulo-nephritis, his observations being based on nine cases of this affection. The gross and microscopical appearances were described in detail. The kidneys were enlarged and hyperemic, with the cortex unchanged or sometimes thickened and the glomeruli are prominent. With a low power the glomeruli are larger than normal, and with a higher power apparently bloodless.

Although he had noticed swelling and proliferation of the glomerular epithelium, he did not agree with the opinion of some that the capillary circulation is obstructed through compression of the capillaries by this proliferation, because in all the specimens which he had examined the loops of the capillaries were larger as a rule than normal, showing that the pressure was from within, not from without.

He believed that the capillary obstruction is due to proliferation and thickening of the endothelial cells. The hypertrophy of the left ventricle, noticed in all his cases, was due (1) to the presence of some toxic element in the blood, and (2) to obstruction of the circulation in the Malpighian bodies, which compelled the left side of the heart to do more work.

He suggested that the term glomerulo-nephritis ought to be limited to those affections in which there is an obliteration of the loops of the capillaries in the Malpighian bodies, and not applied to those affections in which there is only proliferation and desquamation of the glomerular and capsular epithelium, which are common to all forms of chronic nephritis.

CONGENITAL HIP DISLOCATION.—Dr. Adams (*Brit. Med. Jour.*) says that in this dislocation the head of the femur, though displaced upward, has been found to be still within the capsular ligament, so that no true dislocation exists. In every dissection the osseous rim and the cotyloid ligament have been found wanting, so that the acetabulum is represented only by a flattened triangular depression. This defective condition can only be a congenital malformation. The head of the femur is diminished in size, flattened and irregular in outline, and covered with a thin layer of articular cartilage. The round ligament is sometimes elongated, but is often absent. The neck of the femur is nearly horizontal and curved or twisted backward, on account of the altered position of the head in adults. The great trochanter is diminished in size and altered in form. The capsular ligament becomes elongated and greatly increased in thickness and density, sometimes almost equal to cartilage, compensating to a certain extent for the absence of the acetabulum. In consequence of the absence of the acetabulum, the head of the femur gradually ascends to the dorsum ilii after the child begins to walk. It is doubtful whether any displacement exists at birth or until the walking period, though the requisite conditions undoubtedly are present. Shortly after this time the lameness is noticed, and subsequently inequality in the length of the limbs becomes apparent, but before this no inequality can be detected. The displacement is never due to muscular action. The gluteal muscles, from disuse, pass into a state of fatty degeneration. If treatment be neglected in cases of double displacement, the pelvis gradually becomes horizontal, with the lumbar vertebræ projecting anteriorly and the sacrum depressed between the iliac bones and quite horizontal. The pelvic bones are also altered in shape. When the displacement is at only one hip, obliquity of the pelvis, altered shape of the pelvic bones, and severe lateral curvature of the spine, result. The theory that this is a traumatic dislocation produced by the accoucheur in difficult labor is negated by the pathological conditions and by the fact that in a very large proportion of the cases in which the character of the labor was known it was easy and natural. The treatment consists in recumbency and light, continuous traction.—*Med. Standard.*

STROPHANTHUS IN HEART DISEASE.—Mr. Montague D. Makuna says: Having recently had occasion to prescribe it

in two cases with excellent results, I take this opportunity of bearing testimony to its action as a certain cardiac tonic and powerful diuretic, with a hope that it may induce others to use it when they find themselves in a dilemma, and feel anxious to resuscitate the failing action of the heart. I have used it firstly in four cases of angina pectoris, in two cases associated with dilatation of the heart. A fortnight ago I was hurriedly called to see a young man, aged twenty-five, in an agony of pain, with tumultuous action of the heart. Within five minutes of the administration of a five-minim dose his breathing became quiet, pain disappeared, and the rhythm of the heart's action was restored. In two cases of dilatation of the heart, the patients took five-minim doses three times a day with marked benefit.

Secondly, I have used it in two marked cases of fatty degeneration of the heart. I had a patient, aged forty-five, under treatment when Prof. Fraser read his paper, and whose life was altogether despaired of at the time. The state of degeneration was much advanced, and she had some general dropsy. She lived to take it for nearly eight months—five-minim doses three times a day; but about six months after its first administration the cardiac response became more and more feeble, until she succumbed. I believe her life was prolonged with some comfort solely by the use of strophanthus. I have at present a case of fatty degeneration of the heart in a woman, aged forty-nine, accompanied by attacks of angina, much dyspnoea, and palpitation. I have administered to her five-minim doses every hour till the action of the heart is quieted, and the breathing rendered easy. She now takes it three times a day in the form of a mixture, which can be safely trusted to the patient, namely: Tinct. strophanthus, ℥iiss; extract ergot liq. ℥vj; spirit chloroform, ℥iiss; aquæ lauroceres ad. ℥iv; a teaspoonful three times a day in a wine-glass of water. The latter patient has taken this mixture during the last week with marked benefit.

I have had, unfortunately, the experience of tincture prepared from other parts of the plant than the seed, in two cases which eventually proved fatal. Judging from actual observations at the bedside, I can not but pronounce it as uncertain in action and totally unreliable, notwithstanding the assurance of the druggist of its equal efficacy when the supply of the seeds had gone out of the market at the end of last year.—*British Medical Journal*, Sept. 3, 1887.

DO SPONGES USED IN OPERATIONS REMAIN STERILE?—Dr. C. Fenger reported to the Chicago Gynæcological Society eight abdominal operations. At the end of each operation small pieces of the sponges used were placed in gelatin. They were usually stained with blood, and sometimes had cysts contents clinging to them. The following is the list of sponges infected: Operation 1: 5 sponges examined; 1 infected. Operation 2: 2 sponges examined; 1 infected. Operation 5: 4 sponges examined; 1 infected. Operation 8: 2 sponges examined; 1 infected. The sponges were generally sterile at the close of the operation, even though most of them had come in contact with the skin of the abdomen and the contents of the cysts. It may seem strange that the sponges used in the operation for pyo-salpinx, in which the cysts burst into the abdomen in tearing it away from its adhesions, did not develop any colonies. Five sponges examined had remained apparently sterile. From the pus in this cyst cultures were made in solid blood serum with the growth of a small micrococcus usually in the so-called diplococcus form, but this microbe would not grow in gelatin beef tea.

VACCINATION IN YELLOW FEVER.—Dr. Dominigos Freire, of Rio de Janeiro, read a paper on this subject, the tenor of which was that the disease can be prevented by inoculation with attenuated virus. Dr. Freire stated that in families of ten or fifteen members, living in one hut, if vaccination was practiced after the outbreak of the fever among the members not yet affected, this arrested the further progress of the scourge; whereas, where it was not practiced they were all stricken down with the fever, and many, if not all, died. The paper was accompanied by microscopic specimens of the microbe of yellow fever.

Dr. Freire, being asked what was his theory concerning the attenuation of the virus of yellow fever, answered, by oxidation, through the red corpuscles of the blood, and the proper or improper medium into which it is placed; but, he added, all this is as yet only conjecture.

FORCED ARTIFICIAL RESPIRATION IN OPIUM-POISONING, ITS POSSIBILITIES, AND THE APPARATUS BEST ADAPTED TO PRODUCE IT. Dr. George E. Fell, F.R.M.S., of Buffalo, N. Y. —In one of the latest extensive works, we find that artificial respiration has a wider range of application than might at first be supposed. It has been used in drowning, strangling,

occlusion of the air-passages, hemorrhage and poisoning from anesthetics and the various alkaloids. Those methods depending upon the movement of the limbs and body for their success have been usually supplemented with pressure by the physician. In the physiological laboratories experiments are performed, in which the trachea is opened to supply the air for respiration by means of bellows. The insertion of laryngeal tubes aiding in artificial respiration is worthy of consideration.

I have applied the term *forced respiration* to those cases in which the trachea is opened, to distinguish it from the ordinary artificial respiration. After extended inquiries, I have never heard of a case in which forced respiration has been used upon the human subject in opium-poisoning. On July 23, 1887, I was called to see a severe case of opium-poisoning, which, after the ordinary course of treatment, I finally gave up to die. Dr. F. R. Campbell was summoned to the case, at which time we found the respirations only one per minute; the pulse was still to be detected at the wrist. Atropine was at this time administered hypodermically, which soon resulted in a dilatation of the pupils. Having frequently performed the operation of forced respiration on animals, I suggested the advisability of trying this upon our patient, to which Dr. Campbell acquiesced. The apparatus which I possessed for this purpose was immediately sent for. The operation of laryngotomy was made, the tube inserted, and forced respiration produced. The pulse soon became stronger and more regular, and in twenty or thirty minutes the respirations themselves began. In three hours the respirations had increased from one to twenty per minute.

Dr. Brainard, of Los Angeles, Cal., objects to this method, owing to the danger of the operation. He thought Sylvester's method sufficient, if sufficiently prolonged, and if we used the precaution to pull forward the tongue. The artificial method should be continued faithfully for at least six to nine hours.

Dr. Fell replied that in his case the artificial respiration was kept up until the patient seemed to be getting worse all the while.

Dr. Entrekin, of Ohio, has tried successfully forced respiration in opium-poisoning by passing an ordinary piece of tubing in through the larynx, and attaching to the

external opening an ordinary pair of bellows. The connection had, of course, to be broken with each expiration.

ANTIPYRIN IN THE TREATMENT OF DISEASES OF WOMEN.—Meniere has found antipyrin useful in dysmenorrhœa, especially when attended by neuralgia, for which he gave the drug in a prescription containing seventy grains in four ounces of menstruum, of which, when the pains were moderately severe, he gave from three teaspoonfuls to three tablespoonfuls daily. In cases of ante- or post menstrual crises, the dosage should be largely increased; and, if needed, the following may be given by rectal injection:

Infusion of valerian	3 7½.
Decoction of poppies	3 7½.
The yolk of one egg.	
Antipyrin	grs. 15 to 45.

To be made into an emulsion, and given warm.

Prompt and positive benefit has followed the use of this combination.

In dysmenorrhœa from obstruction to the flow, the following has proved efficient:

Aquæ chloroform	3 25.
Syr. digitalis	3 3¾.
Liq. ether	3 3¾.
Antipyrin	grs. 75.

Of which a teaspoonful, or dessertspoonful, may be given hourly.

In some cases ergotine or hamamelis may be combined with antipyrin, as follows:

Aquæ tiliæ	3 25.
Ergotin	grs. 15.
Syrupi digitalis	3 5.
Antipyrin	grs. 75.

Also

Aquæ tiliæ	3 25.
Fl. ext. hamamelis virg.	m 30.
Syrupi digitalis	3 5.
Antipyrin	grs. 75.

Linden-flower water and syrup of digitalis are not official in America, and any convenient menstruum and the usual preparations of digitalis should be employed: the dosage is that usually employed with the ingredients.

Antipyrin may be given by hypodermatic injection in

Recently boiled water	3 2.
Antipyrin	grs. 30.

Of which twenty drops represent three grains of antipyrin; from two to four such injections are needed to secure the effect of the drug.

FOR CHAFING OF INFANTS.—M. Lorenz in his *ochthyol in der Chirurgie* recommends the following, which he declares acts like magic:

R Ammon. sulph. ichthyolici	grs. iij.
Unguent. paraffini	3v.
Cumarini	grs. viij—xv.

M. Apply with the finger to the chafes, after first bathing and drying the child. The author says that the salve burns a little when first applied; but this soon ceases.

THE MICROSCOPICAL EXAMINATION OF SEMEN becomes of interest to the physician in two classes of circumstances, the one purely clinical, the other medico-legal.

1. It is of clinical interest and value in those cases where there is a question of spermatorrhœa, and in cases where the physician is consulted by a patient desirous of knowing whether he (the patient) is capable of procreating or not. The first class of patients are the most numerous, and, in these cases, the examination is absolutely the only method of differentiating between true spermatorrhœa and prostatorrhœa, or between the former and certain urethral catarrhs.

2. The medico-legal examinations of, or *for*, semen become necessary in cases of alleged or suspected rape, attempts at violence, etc., and are frequently of the highest importance, the liberty and even life of accused persons depending upon the skill of the examiner.—*St. Louis Med. and Surg. Journal*.

FOUR SETS OF TEETH BEFORE FIFTEEN YEARS OF AGE.—Dr. Gatching (*Boston Med. and Surg. Jour.*) reports a child which had all its teeth at six months and shed these at nine. At fifteen months she had a full set once more. In six weeks thereafter these were shed. At thirty months she had a full set again, and these remained till her fourth year. The fourth set began to erupt at eleven, and the set was complete at fifteen.

AN OLD-TIME PRESCRIPTION.—In the *Medical and Surgical Reporter*, for July 9, 1887, Dr. Harrison Allen calls attention to a number of classical prescriptions which seem to be in danger of being forgotten. The first of these was published in Dr. Chambers' lectures in London, 1865, and is as follows:

R	Tincturæ ferri sesquichloridi . . .	3ii
	Strychninæ hydrochloratis . . .	gr. ss.
	Tincturæ digitalis . . .	3i
	Misturæ camphor . . .	3x
	Fiat mistura	

Sig.—Two tablespoonfuls twice daily.

Dr. Chambers states that he administered an ounce of the mixture twice a day, in a case of anæmia in which the eye-balls were prominent, and he dwells upon the significance of this form of anæmia seen in young women in whom there is excitement of the heart's action, retarded development of the sexual functions, and enlargement of the thyroid gland.

SALICYLIC ACID IN FOOD AND DRINK.—The wholesale introduction of this acid into the manufacture of a large number of articles of diet, has led to a thorough investigation into its effects upon health. France, since 1881, has prohibited its use in foods and drinks. Prof. E. H. Bartley has recently examined this subject with great caution, and finds that clinical experience shows that the use of this acid can not be long continued without marked impairment of the digestion. In its elimination it passes through the kidney undecomposed, and under these circumstances not only irritates, but also inflames them. Although the quantity of the acid taken in a glass of beer is small, the entire amount consumed through the day by an habitual drinker more than equals a medicinal dose; and it has been found in those nursing women who drink ale, porter, etc., to stimulate lactation, that temporary renal disease is very frequent. Carbolic acid has also been found to be an ingredient of the impure drug, and it has been thought that some of the cases of poisoning due to its use were attributable to that acid. In view of these facts, it is evident that the use of salicylic acid in the preservation of foods should be totally prohibited by sanitary authorities.

AN ORIGINAL PROCEDURE.—Dr. N. Senn has described a procedure which is certainly striking and original, and if sufficiently successful to justify its practical and universal application, will remove one source of difficulty in connection with surgery about the face, which renders operations in that region so embarrassing to both patient and operator. The procedure consists in the accomplishment of bloodless operations by occluding the caliber of the cervical vessels with an Esmarch elastic tourniquet. The trachea is isolated by cutting down upon it, and the pressure then applied sufficient to check the arterial current to the head, and yet allow of a supply to the brain by means of the vertebral arteries which are not occluded, on account of their great depth and protected situation. If this is practicable, the removal of the superior maxillary bone, which has long been regarded as a formidable operation, will be largely shorn of its difficulties.

MECHANICAL TREATMENT OF SKIN DISEASES.—About ten years ago, a method of treating lupus was recommended by Vidal, but it seems not to have become very popular. It consists in parallel incisions into the diseased skin, made in all directions. A many-edged knife (with four to six adjustable blades) was used for the purpose. Another much recommended method of treating skin troubles, but at present not sufficiently employed nor appreciated, is that of massage. Dr. O. Rosenthal, of Berlin, in a paper read before the Scientific Society of Berlin, shows how he combined these two forms of treatment. It is carried out in the following manner: After the parallel incisions, the parts are covered with loose cotton, in order to avoid hemorrhage; with this piece of cotton the parts are kneaded by long and deep pressure. The pain caused does not amount to very much, the hemorrhage is never very serious, and scars need not be feared. The diseases treated in this manner were acne vulgaris of the face, sycosis vulgaris with formation of pus and knots; and sycosis parasitica in even advanced stages. To help this method along anti-parasitic and absorbent remedies were also applied.

ARSENIC IN DIPHTHERIA.—A writer in the *Brit. Med. Jour.* speaks very favorably of the use of arsenic in diphtheria, being led to its application on account of its well known antiseptic properties. It is readily applied in the

form of the liquor arsenicalis on a piece of cotton-wool or lint, and although it is not looked upon by the writer as in any sense a specific, it is certainly beneficial in improving the condition of the throat and removing that peculiar sickening odor which is always present. He also recommends the removal of the false membrane by applying a brush with rather stiff bristles to the center of the patch, and then turning the brush around two or three times, entangling the membrane in the bristles and readily detaching it.

LAPAROTOMY COMPLICATED BY HEMORRHAGIC DIATHESIS. —Dr. Charles Carroll Lee reports a case in which the uterine appendages were removed through the usual abdominal incision, the greatest care being exercised throughout the operation on account of the recognition of the great tendency to hemorrhage, which was evidenced at every step of the procedure.

The patient lost about a pint of blood during the operation, and four hours later was found to be bleeding quite profusely. The blood lost at this time amounted to about twenty-six ounces; the patient afterward remaining blanched, and with an almost imperceptible pulse. Transfusion was decided upon, and a quantity of a two and a half per cent. solution of salt was injected into the median basilic vein.

Patient soon rallied, had no recurrence of the collapse, and completely recovered.

APHASIA IN CHILDREN. —Aphasia in childhood is not rare (*Jahrb. f. Kindh.*) and must be of the like causation as in adult life. The so-called "reflex" aphasia resulting from infectious diseases is almost peculiar to childhood. Aphasia is a frequent complication of infantile spastic hemiplegia. Children should be taught to use both hands as a means of cultivating both sides of the brain. Aphasia is usually motor or ataxic in children, but the determination of alexia and agraphia is not always possible.

GENKIN in *Wratsch* reports the use of oil of turpentine, in doses of ten drops to a drachm of castor oil, in the treatment of dysentery. There was seldom any disturbance of the urinary organs and the results were better than those obtained by the use of opium. —*New York Medical Journal*,

Book Notices.

ANATOMY, DESCRIPTIVE AND SURGICAL. By Henry Gray, F. R. S., Fellow of the Royal College of Surgeons, Lecturer on Anatomy at St. George's Hospital Medical School. The Drawings by H. V. Carter, M. D., Late Demonstrator of Anatomy at St. George's Hospital. With Additional Drawings in Later Editions. Edited by T. Pickering Pick, Surgeon to, and Lecturer on Surgery at, St. George's Hospital; Senior Surgeon, Victoria Hospital for Children, etc. A New American from the Eleventh English Edition. Thoroughly Revised and Re-edited with Additions by William W. Keen, M. D., Professor of Surgery in the Women's Medical College of Pennsylvania; Professor of Artistic Anatomy in the Pennsylvania Academy of the Fine Arts, etc. To which is added Landmarks, Medical and Surgical. By Luther Holden, F. R. C. S. With Additions by William W. Keen, M. D. Large Imperial. 8vo. Pp. 1,100. Leather. Philadelphia: Lea Bros. & Co.; Cincinnati: R. Clarke & Co. Price, \$8.25.

Gray's Anatomy is the most magnificent work upon anatomy that has ever been published in the English or any other language. This is saying a great deal, but we do not believe that it is an exaggeration.

Many might suppose that as anatomy is a description of the different parts of the human body—the organs, as the brain, lungs, liver, stomach, etc.; the muscles, blood-vessels, nerves, tendons, etc.—and these parts being fixed—always the same in different persons, and never changing—consequently it would constitute a branch of medicine in which there could be no progress after it had been developed and arranged, and no opportunity for improvement in a textbook which set it forth. But if one will compare a work upon anatomy of the present time, with one published twenty-five or thirty years ago, he will be convinced that great progress has been made in the exposition of the fixed facts of anatomy. If Gray's Anatomy be compared with Wistar's or Horner's, there will be found an improvement that will convince any one that the latter works would be no better adapted for students of to-day, than the old works of Gregory or Eberle on Practice would be.

The Eleventh English Edition of Gray's Anatomy from

which the New American Edition has been issued, has undergone, by the English editors, a careful revision. The introduction of former editions has been divided into two sections—one on General Anatomy, the other on Development—and incorporated into the body of the work, having been entirely rewritten, in order to keep pace with the ever-increasing activity of research in these branches of the science of anatomy. In the section on osteology it has been the endeavor to give more accurately the time for the appearance of the several centers of ossification of the bones. In the section on arthrology, the movements permitted in each joint have been carefully revised, and the muscles by which those movements are effected have been given. In the section on myology many alterations and corrections have been made. The part of the work devoted to microscopic anatomy—which, nowadays, is a most important part, for microscopical anatomy every day is assuming more and more importance—has been carefully revised, and alterations in arrangement and detail have been introduced. This part will be found exceedingly interesting and valuable.

A new feature has been adopted in this edition, which will be found not only novel, but very valuable. The whole of the arteries, veins and nerves in the wood-cuts have been colored. This will give additional clearness to the illustrations and make them far more easily understood. In the section on osteology, the dotted lines showing the attachment of the muscles have also been colored. We will mention that the American edition is published both with and without colors.

The American editor, Dr. Wm. W. Keen, has subjected the whole work to a careful revision, correcting some errors which appeared in the English edition, and making not a few important additions. He has carefully described the cerebral circulation, and added a section on cerebral localization and topography—subjects, certainly, of great and increasing importance, especially in view of the recent rapid strides in cerebral surgery. There have also been made some additions on the action of the muscles of the sole of the foot; a better description of the pectoralis major, supinator langus and thenar muscles, and a careful description of the palmar fascia. In all, one hundred and thirteen new engravings have been added to the American edition, many of which are original.

The fact that Gray's Anatomy has reached eleven editions

in England, is conclusive evidence that it is held in the highest esteem. It seems to us that it has now attained perfection, and that it will be susceptible of improvement only so far as progress will be made in microscopic anatomy.

DIFFERENTIAL DIAGNOSIS. A Manual of the Comparative Semeiology of the More Important Diseases. By F. De Havilland Hall, M.D., Assistant to the Westminster Hospital, London. Third American Edition. Thoroughly Revised and Greatly Enlarged. Edited by Frank Woodbury, M.D., Professor of Therapeutics and Materia Medica and of Clinical Medicine in the Medico-Chirurgical College, etc. 8vo. Pp. 255. Cloth. Philadelphia: D. G. Brinton, 115 S. 7th Street.

The author states in the introduction that diseases are divided into two great classes—general and local. General diseases are those which comprehend those which affect and pervade the whole system, and in which any local disorder may be regarded as either an accidental complication or sequel; while local diseases are those in which organs are especially attacked, and in which the involvement of any other part of the body is considered as consecutive to, or the result of, the primary lesion.

It is advised that when a physician is called to a patient, the first question he should ask himself is, "Have we here a general or local disease?" He solves the query by excluding those organs whose forms and functions present nothing abnormal, and by distinguishing, among such as are implicated, those which indicate primary and essential lesions, from those which are affected accidentally or secondarily. Where no primary lesions are discoverable, he may conclude that he has to do with a general disease.

In the work it has been held especially in view (1) the *early* and often overlooked signs of the presence of disease; (2) the collection of whatever symptoms are alleged on good authority to be *pathognomonic* of pathological conditions; (3) any peculiar features which diseases have been found to present in this country.

The work is divided into two parts. Part I. is devoted to the consideration of general diseases, and contains two chapters. Chapter I. treats of fevers; Chapter II. of diseases of the blood. Part II. considers local diseases and has five chapters. Chapter I. treats diseases of the nervous

system; Chapter II., diseases of the respiratory apparatus; Chapter III., diseases of the circulatory apparatus; Chapter IV., diseases of the digestive system; Chapter V., diseases of the urinary organs.

An attentive study of the work by physicians generally, and by young physicians, can not help to aid much in making out a differential diagnosis. In illustration, we will quote from page 119 the points to be observed in distinguishing *Hysterical Paralysis*:

(1.) In hysterical hemiparesis the face is rarely, and the tongue never, affected.

(2.) In hysterical paraplegia incontinence of urine is never present (HAMILTON). There may be retention or temporary suppression of urine.

(3.) No amount of help can keep the patient from staggering or falling when she attempts to walk (REYNOLDS).

(4.) The foot, in walking is simply dragged along, and not swung, as in organic hemiplegia (TODD).

(5.) In all sudden cerebral palsies, the nails of the affected extremities cease to grow. In hysterical palsies, of one limb or both, whether paraplegic or hemiplegic, the rate of nail growth is unaltered (WEIR MITCHELL).

The diseases of the nervous system constitute a class in which it is frequently difficult to make out the particular disease. The *points* given in the work to aid in diagnosis will be found especially interesting and valuable. But in others of the local diseases will be found *points* that will be of great assistance, many of which are often omitted in works upon practice.

THE PHYSICIAN'S VISITING LIST (LINDSAY & BLAKISTON)
FOR 1888. Thirty-seventh Year of its Publication.
Philadelphia: P. Blakiston, Son & Co.

The Lindsay & Blakiston Visiting List has been before the profession for so many years, that it seems superfluous to notice it further than to make known the fact that the edition for 1888 has been prepared. The qualities which the publishers claim for their List are strength, compactness, convenience and durability, which are very desirable qualities. A work of this kind has a great deal of hard wear to endure; therefore it should be well and strongly bound—should be made durable. It is necessary, also, that it be compact and convenient, in order for it to answer its purpose.

There are various sizes of this Visiting List—for twenty-five patients, per day or week, price \$1.00; for fifty patients, per day or week, price \$1.25; for one hundred patients, per day or week, price \$2.00. The edges are gilt. The printed matter consists of a calendar 1888-89; Marshall Hall's method in asphyxia; poisons and antidotes; French system of weights and measures; dose table; list of new remedies for 1888; aids to diagnosis and treatment of diseases of the eye; diagram showing eruption of milk teeth; posological table; disinfectants; examination of urine; incompatibility; new table for calculating the period of utero-gestation; Sylvester's method for artificial respiration; diagram of the chest.

The tables are valuable, but take up comparatively little space. This List is among the smallest and lightest published. It contains blank pages for addresses of patients and nurses, records of births and deaths, cash accounts, general memoranda, etc.

DISEASES OF THE FEMALE MAMMARY GLANDS. By Th. Billroth, M.D., of Vienna, and New Growths of the Uterus, by A. Gusserow, M.D., of Berlin. Illustrated. These two volumes constitute Vol. IX. of the *Cyclopædia of Obstetrics and Gynecology* (12 vols., price, \$16.50), issued monthly during 1887. New York: William Wood & Co. Cincinnati: Garfield.

It is not necessary to repeat our expression of very high praise of the magnificent work in process of publication by Messrs. Wm. Wood & Co., of New York, entitled the *Cyclopædia of Obstetrics and Gynecology*. It will be perceived that the two volumes, 1st, *Diseases of the Female Mammary Glands*, by Billroth, of Vienna, and, 2d, *New Growths of the Uterus*, by Gusserow, of Berlin, constitute the ninth volume.

When we noticed the volumes constituting Dr. Charpentier's work upon Obstetrics last May, we said: "This work of Dr. Charpentier is undoubtedly the most complete work upon obstetrics in any language in the world. We do not say this for the purpose merely of praising it, for we have no interest in it other than to speak what we believe in regard to it; but we make the assertion having full confidence that our examination of it by any one will confirm the statement." Now, though we would not wish to take the ground

that Billroth's *Diseases of the Mammary Glands*, and Gusserow's *New Growths of the Uterus* are the very best works upon those subjects that have ever been published, yet we do not hesitate to say that the reader will find in them a most complete exposition of the affections of which they treat.

The name of Billroth as a pathologist and a specialist in diseases of women is almost as familiar in this country as in Vienna. No one holds a higher position as an authority. Gusserow, also, as an instructor in obstetrics and gynecology, holds a second position to no one, and in these branches of medicine he is an authority.

The physician who has the volumes of this *Cyclopædia* upon his shelves will have a work of the highest authority to which to refer when he needs to seek for information in one of the most important classes of diseases. There are no disorders which a medical man is more frequently called upon to treat than female diseases, and, consequently, it is of the highest importance that he should be familiar with their pathology and treatment as established by the latest researches of the most eminent investigators. The inattention of many practitioners to their duty in this respect has led many patients to discard the regular physician and seek an irregular one for relief. But the physician who is supplied with this splendid work will be in possession of a treasury of knowledge, which will not fail him in any need.

A MANUAL OF ORGANIC MATERIA MEDICA. Being a Guide to Materia Medica of the Vegetable and Animal Kingdoms. For the use of Students, Druggists, Pharmacists and Physicians. By John M. Maisch, Phar.D., Professor of Materia Medica and Botany in the Philadelphia College of Pharmacy. Third Edition. With Two Hundred and Fifty-seven Illustrations. 8vo. Pp. 532. Cloth. Philadelphia: Lea Bros. & Co. Cincinnati: Robt. Clarke & Co. Price, \$3.00.

In the preface to the first edition of this work, the author stated that when he was called to the Chair of Materia Medica in the Philadelphia College of Pharmacy, he seriously felt the need of a suitable text-book, which could be used in connection with his lectures. As the result, he elaborated a system of classification which should be readily comprehended and easily applied by those for whom it was

intended. He found it, however, not an easy task, and almost every year, for a number of years, he had to remodel his plan, or make what in his opinion seemed to be desirable improvements.

The work is divided into five parts. Part I. is devoted to the consideration of Animal Drugs, as animals, eggs, anastomosing fibrous tissue, membranous tissue and gelatins, secretions and excretions, calcareous skeletons and concretions.

Part II. embraces Cellular Vegetable Drugs, as roots, rhizomes, tubers and bulbs, barks, leaves, herbs, fruits, seeds, cellular drugs not readily recognized as distinct organs of plants, etc.

Part III. considers Drugs without Cellular Structure, extracts and inspissated juices, sugars, gums, gum resins, resins, oleoresins and balsams, volatile oils, fixed oils and waxes.

In considering the various drugs, the medical properties and doses are presented briefly as matters of important information; but it is not the design of the treatise to give instruction in their therapeutical application. It is more especially the object of the work to serve the needs of the pharmacist and druggist in the way of enabling them to recognize drugs, to determine their quality, to detect their adulteration, and to distinguish the characteristic elements of those which are closely allied.

Prof. Maisch, as our readers are aware, is one of the most distinguished pharmacists of this country. He and Prof. Stille are the authors of the "National Dispensatory," which is not excelled by any work of its kind ever published. The learning and experience of the author, therefore, is a guarantee that this manual is well adapted for the purpose for which it has been prepared, viz.: a text and reference-book for students, pharmacists and physicians, containing the most recent and reliable information in regard to drugs.

A MANUAL OF THE PHYSICAL DIAGNOSIS OF THORACIC DISEASES. By E. Darwin Hudson, Jr., A.M., M.D., late Professor of General Medicine and Diseases of the Chest in the New York Polyclinic; Physician to Bellevue Hospital, etc. One Volume. Octavo. 162 pages. Nearly 100 Illustrations. Muslin. New York: William Wood & Co. Cincinnati: Garfield, Sixth and Vine Streets. Price, \$1.50.

The preface to this work is written by Laurence Johnson, M.D., a friend to the author. The author, just after the manuscript had been prepared and placed in the printer's hands, was suddenly seized with sickness and died. Besides speaking of the author to the readers of the work, it devolved upon his friend to perform the melancholy duty of correcting the proof-sheets.

For the purpose of fulfilling his needs as a teacher in the New York Polyclinic, Dr. Hudson, in 1885, privately printed a small book entitled, "Essentials of the Physical Diagnosis of Thoracic Diseases," which was circulated among the members of his class and among some personal friends. The work having been found useful and convenient, the material was elaborated and the present volume prepared.

Though both small in size and price, the work covers the whole field of the physical diagnosis of thoracic diseases. The author has not only made use of his own experience, but has also collated freely the opinions of the best authors. Students about to begin the study of the methods to diagnose the diseases of the thoracic viscera, can make use of no better manual for the purpose.

As our readers are aware, "physical diagnosis" consists in studying those signs of disease which can be learned by auscultation and percussion—by placing the ear over the organ suspected to be diseased, and listening to any sounds that may be emitted, and by palpating over the part, and giving attention whether or not there is any change in the normal resonance. In the way of illustration of the author's mode of treating chest sounds when he comes to give instruction in auscultation, in the fifth chapter he first discusses chest acoustics. He then takes up the abnormal sounds referable to respiratory organs; then follows a classification of these sounds. He then considers the modification of normal sounds; adventitious sounds; interpretation of modified and adventitious sounds; their special study; illustrations of abnormal respiratory sounds; study of abnormal voice sounds, etc. It will easily be observed that the treatment of the subjects is methodical—one following regularly in order upon the other.

Medical students and practitioners of medicine desiring to go over again the study of physical diagnosis, so as to refresh their memories and add to their knowledge whatever new has been developed in the way of progress, will find no

work better adapted to their needs than the one before us. The author had long been a teacher, and, consequently, was well informed of the best method of imparting instruction. The work is small, for the author discarded all unnecessary verbiage and over-elaboration.

Editorial.

PROGRESS DURING THE REIGN OF QUEEN VICTORIA.—The following very interesting editorial we copy from a very late issue of the *Lancet*, of London:

The benefits which have been conferred upon the English people during the fifty years the Queen has ruled over this country, have been during the present year the subject of universal attention. The Empire has prospered and grown, the necessities of life have been rendered more available for all, and there has been a steady advance in the social improvement of the people. Perhaps the public health administration, which has had its birth in this period, has been more instrumental in fostering this social improvement than any other power which has been in force. Work such as that undertaken by the late Lord Shaftesbury, and which aimed at the promotion of cleanliness of mind as well as of body, had its natural outcome in the scientific study of the means of preventing disease. The admirable address which Dr. Thorne, the newly elected President of the Epidemiological Society, delivered on the 2d inst., places forcibly before the profession, and we hope before the public, the great gain that has accrued to the population from our better knowledge of the etiology of diseases and of the requirements of life.

Dr. Thorne properly claimed for our system of registration of causes of mortality that it was the beginning of preventive medicine. Until it was possible to know with some precision the proportions in which the population died from different diseases, the effects of conditions inimical to life could not be appreciated. To the admirable development of that system at Somerset House, and to the accuracy of the reports which emanate from that department, we are indebted, in no small degree, for the progress of which Dr. Thorne was able to give account. It made possible to be known the duration of life in country districts and in large

towns, and has given opportunity for the local circumstances which gave rise to an undue mortality to be accurately studied.

England may, without boasting, claim that she has taken the lead, not only in gaining knowledge of the conditions which are concerned in the production of particular diseases, but that she has also been first in modifying her laws and in creating a public health administration in response to this teaching. Dr. Thorne took as an illustration of the benefits which had been conferred on the community by these changes, the reduction in the death-rates from certain special diseases. Fifty years' experience of smallpox had provided data by which the extent of the usefulness of vaccination might be better defined. The Vaccination Acts passed in Queen Victoria's reign had led to a vast saving of life, and especially of child life, and these had especially protected those who are unable to guard their own interests. "Fever" had been found to consist of at least two different diseases—typhus and enteric fever; the former largely due to the crowding of people in houses and of houses on a site where air and light were shut out; the latter mainly due to excremental pollution. Each required its special means of prevention, and these had been applied with astonishing results. London had spent fourteen millions of pounds in the improvement of unhealthy areas, and among the results might be cited the almost complete disappearance of typhus from the metropolis. Enteric fever had enormously diminished, and this had been brought about through the adoption of methods which the new knowledge showed to be necessary. Further investigation had indicated the different channels by which disease could be disseminated; Ballard and Michael Taylor had demonstrated the part that milk could play in the diffusion of enteric and scarlet fever; Power and Klein had shown how milk-scarlatina had its origin, and had proved the urgent need for human and veterinary medicine to work together for the saving of human life; Buchanan had taught that phthisis, the scourge of the British Isles, was chiefly dependent upon conditions of soil which could be removed. These are but a few examples of the additions to knowledge, which the work of the last fifty years has produced. Not least in importance must be reckoned the development of a system of precise investigation, which will confer in the future even greater benefits than those experienced in the past, and to the perfecting of which the new

President of the Epidemiological Society has conspicuously contributed.

Dr. Thorne, at the conclusion of his address, not unnaturally touched upon the complaint of some that the country is already over-populated, and that the saving of life which was being effected was already creating difficulties which must increase as time went on. To this he had a sufficient reply. Preventive medicine aimed not only at the reduction of death-rates, but at the diminution of disease; the result he said, of applying its principles to public health operations, had conduced to individual and national prosperity, to greater enjoyment of life and to capacity for greater power for remunerative occupation. There is, indeed, no question that happiness is brought to the greater number by the diminution of disease and death; and it may be said of the Victorian area, that in this period the work necessary to effect this object was first seriously undertaken by the State.

DECEASE OF WALTER A. DUN, M. D.—This young physician departed this life November 7. Stricken with typhoid fever, cerebral symptoms soon supervened, and he succumbed.

From a brief biography of the deceased by Dr. Eric E. Sattler, we learn that Dr. Dun was born, March 1, 1857, near London, Madison County, Ohio. At the age of sixteen he entered the University of Ohio at Columbus, where he remained three years, graduating at the age of nineteen with the degree of A. B. He came to Cincinnati shortly afterward, and entered the Miami Medical College, September, 1878. He attended three successive courses of lectures, and in 1881 he competed successfully for the position of resident physician of the Cincinnati Hospital. Having spent a year in the institution, zealously applying himself to his medical studies, he graduated March, 1882. For general excellence in the final examinations of the college he was awarded the Faculty Prize of one hundred dollars in gold at the Commencement Exercises. In June, 1882, he sailed for England, and passed a year in the London hospitals and clinics. While there, he successfully passed the examinations for the degrees of Licentiate of the Royal College of Physicians (L. R. C. P.) and member of the Royal College of Surgeons (M. R. C. S.). Returning to Cincinnati in May, 1883, he set up in the practice of medicine. Soon after he was appointed Demonstrator of His-

tology and Practical Physiology at the Miami Medical College. Resigning this position last winter, he assumed the duties of Clinical Lecturer on Diseases of Children in the same college. In 1885, he was elected Curator of the Cincinnati Hospital. In 1884, the Trustees of the newly founded Episcopal Hospital for Invalid Children chose him as one of the Visiting Staff of Physicians.

When the decease of Dr. Dun was announced, several organizations, of which he was a member, met and passed appropriate resolutions. Among them we notice the Society of Natural History, Academy of Medicine, Society of Ex-Internes, Miami College Students. A meeting of the medical profession convened November 8, at 3 P. M., to take action in regard to his decease. Dr. C. G. Comegys was called to the chair, and Dr. Eric E. Sattler acted as Secretary. A number of the physicians present, who had been associates and intimately acquainted with the deceased, made eulogistic remarks in regard to his character. Dr. Ricketts read the following letter from Dr. W. W. Dawson:

My Dear Doctor Ricketts :—

Fearing that I may not be able to attend the meeting of the profession this afternoon, called to do honor to the memory of Dr. Dun, I beg that you will express for me my profound sense of the loss which humanity and our beloved craft have sustained in the death of this gifted and rising young physician.

Dr. Dun was a remarkable man, broad in principle, tender in charity, firm in friendship; he was ambitious, but not selfish; he sought success only for the relief of suffering. His brief career was full of good deeds, and gave earnest promise of great accomplishments. Truly, the death of one so young is a calamity alike to his friends, to his profession, to society. I shall ever regret my inability to meet with my brethren to-day in memoriam of Dr. Walter A. Dun.

Truly, W. W. DAWSON, M.D.

The committee appointed by the Chair to draft resolutions, reported the following, which were unanimously adopted:

Your committee beg to offer the following statement in regard to the death of Dr. Dun:

Dr. Dun had by his earnest and indefatigable work in his profession and in the corollary branches of science, established a reputation of which his friends can justly feel proud. He combined in an eminent degree the elements of

scholarship, of benevolence, and of the refined and cultured gentleman. We feel that a brilliant career has been cut short by his death, and that the medical profession and this community have been deprived of a life that had great promise for good to science and to humanity. Ourselves mourning his loss, we extend our condolence to his family and to his immediate friends.

DRS. J. H. BUCKNER,
WM. CARSON,
J. C. CULBERTSON,

Committee.

THE EFFECTS OF CAFFEIN UPON THE KIDNEY.—Dr. C. D. F. Phillips, F.R.S.E., in a paper read before the *International Medical Congress*, recently held at Washington, says that immediately after the injection of caffein into the blood, the kidney contracts, and this contraction may last for two or even three minutes. This marked contraction, which is due to a constriction of the renal vessels, is followed by a large expansion—the kidney not only returning to its former bulk, but expanding considerably beyond. The expansion is both much greater in amount than the previous contraction, and lasts a much longer time; a single dose of one grain producing an expansion which frequently continues twenty or thirty minutes.

The effect on the urinary flow, he says, is also very marked. During the period of contraction of the kidney, the flow of urine is either greatly diminished, or may even be totally arrested. During the subsequent expansion, the rate of flow is frequently trebled, and this effect persists as long as the expansion. Thus, the effect of caffein citrate is a twofold one: during the first stage of its action there is a fall of general blood-pressure, and great constriction of the renal vessels; during the second stage, the blood-pressure returns to its normal height, and the kidney undergoes great expansion; but this latter effect has a longer latent period, and persists longer than the former. Both the constriction of the renal vessels and the fall of blood-pressure would cause less blood to enter the kidney; and so it is not surprising that during this stage the actual secretion of the kidney is frequently temporarily arrested, to be succeeded by a marked increase, during the second stage of the action of this drug. There are many drugs that will produce constriction of the kidney vessels, but as far as we have seen,

caffein is the only one that will actually arrest the flow of urine.

THE CANCEROUS GROWTH IN THE CROWN PRINCE'S THROAT is situated just below the left vocal chord, says the *Medical Record*. A slight growth is said to be beginning on the right side. This, if true, excludes the operation of partial laryngectomy. As the prince refuses—wisely, the *Record* thinks—to permit the operation of total extirpation, the only remaining surgical method is tracheotomy. This may prolong his life for a year or two.

Sir MORRELL MACKENZIE cabled the *Philadelphia Medical News*, November 19th, as follows: "Although there is no microscopic proof as to the nature of the present growth in the Crown Prince's larynx, it is, in my opinion, no doubt, malignant. It is half an inch below and in front of the growth removed by me last summer, of which there is no return. There is, without doubt, limited perichondritis. The edema which recently appeared was of an acute character, and had entirely passed off when I left San Remo. I think it, however, not unlikely to return in a chronic form."

AN INTERNATIONAL SPEECH.—At the visit of the Vienna Congress of Hygiene to Buda-Pesth, the speech delivered by M. Sasvári was the most striking illustration of internationalism. He commenced in Magyar, and, after a few complimentary words to his Hungarian colleagues, assured the Austrian and German guests—himself speaking in good German—that the Hungarians recognized how much their civilization was due to the Germanic races. Then, speaking in French, he explained that Hungary admired the great French nation, which, marching in the vanguard of progress, had given to the world the highest and most generous ideas. Now, changing from French to Italian, he spoke of the glories of ancient Rome, to be revived at no distant date. Finally, concluding in fluent English, he greeted the brave children of Great Britain, who had borne the banner of civilization to the uttermost regions of the globe. Here the speech seemed ended, but, recognizing among the delegates the dignified features and high turban of the Mahommedan Burgomaster of Serajevo, he again rose, and, in the Servian-Croatian language, hailed the presence of this Oriental functionary as typifying the union of the East and West for the furtherance of the cause of hygiene.—*Lancet*.

THE MEDICAL NEWS VISITING LIST FOR 1888 has been thoroughly revised and brought up to date in every respect. The text portion (48 pages) contains the most indispensable data for the physician and surgeon, including even the latest therapeutic novelties, their doses and effects; while the classified blanks (176 pages) have been rearranged and somewhat condensed, with an obvious gain in convenience. The obstetric engagements and obstetric practice, for instance, are now together, instead of being separate, as formerly. Three styles are now published: Weekly (dated, for thirty patients); Monthly (undated, for one hundred and twenty patients per month) and Perpetual (undated): so that "The Medical News Visiting List" adapts itself to any system of keeping professional accounts. Each style is in one volume, bound in handsome red leather, at \$1.25. When desired, a Ready-reference Thumb-letter Index is furnished, which is peculiar to this Visiting List, and will save many times its small cost (25 cents) in the economy of time effected during a year.

A GOOD disinfectant is made by dissolving half a drachm of nitrate of lead in a pint of boiling water, then two drachms of common salt in eight or ten quarts of water. When both are thoroughly dissolved, pour the two mixtures together, and when the sediment has settled, you have a pail of clear fluid, which is the saturated solution of the chloride of lead. A cloth saturated with the fluid and hung up in a room, will at once sweeten a fetid atmosphere; poured down a sink, water-closet, or drain, or on any decaying or offensive object, it will produce the same result. The nitrate of lead is very cheap, and a pound of it would make several barrels of the disinfectant.

THE season is here when college clinics and dispensaries are opened and medicines and medical advice and attention are gratuitously given to all comers. Numbers of people who are able, and abundantly able at that, to pay for services of a medical man, and also pay for the filling of prescriptions, are getting educated up to dispensaries, and now get their medicines free. This is wrong. It wrongs the physician out of his just fees. It wrongs the druggist out of his meagre profits. It wrongs the person receiving the treatment more than all others, as it pauperizes him, degrading his manhood and causing him to look upon himself as a beggar.

ARMY HOSPITAL SERVICE.—We have learned from the Army Hospital Service that Charles R. Greenleaf, M.D., Major and Surgeon of the Army, has been directed to visit the recruiting depots and rendezvous at certain places, among them Davenport, Iowa, Quincy, Ill., and Evansville, Ind. The older members of the profession, of Cincinnati, will remember Dr. Greenleaf as the son of a former rector of St. Paul's Protestant Episcopal Church of Cincinnati, when it was located on Fourth Street. He graduated, we believe, at the Medical College of Ohio, and soon after entered the regular army. His career has been very creditable.

THE bean will soon be classed among the great army of remedial agents by those physicians in this country who draw all their inspiration and ideas from "over the water." Some French *savant* (?) has discovered that gaseous enemata are not absorbed by the internal economy, but that the alimentary tract normally contains a great amount of sulphuretted hydrogen that can be greatly augmented by a diet of beans—preferably baked beans—and this gas, by an effort of the patient, may be absorbed into the system much more effectively than an enema of the mixed gases, thus doing away with the Bergeon treatment.

DR. B. A. WRIGHT, of California, says, that after long years of investigation and experience, he is satisfied that rabies originates only in carrion-eating animals, as the skunk, dog, wolf, fox, etc. In the southern and central portions of California mad dogs are unknown, because there is no carrion, the pure dry, atmosphere thoroughly drying a dead animal before it can decompose.

DR. EPHRAIM CUTTER, an advocate of special food or a prophylactic in certain acute and chronic organic diseases, reports from the practice of his father, Dr. B. Cutter, a case of consumption of both lungs and double pleurisy, in 1862 given up to die, and subsequently cured, without attendance or medicine, in one winter's diet on a fat hog, and nothing else.

OUR time has been so much occupied since the last issue of the MEDICAL NEWS, that the preparation of not a little editorial matter has had to be deferred.

THE CINCINNATI MEDICAL NEWS.

VOL. XX. No. 240. }
Old Series.

DECEMBER, 1887.

{ VOL. XVI. No. 12.
New Series.

Original Contributions.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS, from the French, by Dr. Illowy,
Cincinnati, Ohio.

THE TREATMENT OF WHOOPING COUGH BY THE NASAL INSUFF- FLATIONS OF MEDICATED POWDERS.—BY DR. P. YUERDER.

About the first days of February, 1886, an epidemic of whooping cough, of sufficient intensity, both as to the number of children attacked and as to the number of daily paroxysms, broke out in the small community of Pont-carré, a place of about five hundred souls. The disease attacked more especially very young infants.

The treatment I employed consisted in fumigating with carbolic acid the chamber of the patients, and in the use of the following syrup:

R ^y	Syrup diacod.	}	.	.	āā	50. grms.
	Syrup belladonna,					
	Acid carbolic	.	.	.	.	0
	Potash bromid.	.	.	.	.	4i.

M. Administer by the teaspoonful, one or more times per day, according to the age of the child.

The treatment was attended with some success. It diminished the number of paroxysms by lowering the reflex irritability; but as soon as it was suspended the paroxysms resumed their former figure. This suspension was necessitated several times by the extreme intolerance of some children of belladonna. Thus in a boy of four years old, two teaspoonfuls per day produced a strong dilatation of the

pupil and marked delirium. Whooping cough requires a rather long-continued treatment, and it is certainly not without its inconveniences to keep a very young child for weeks under the influence of a narcotic, though the same be well tolerated. Other methods of treatment must be sought for.

The nasal catarrh, the rather considerable congestion of the pituitary mucous membrane and the probably parasitic nature of the malady, suggested to me a plan of treatment analogous to that in vogue for the treatment of hay fever. The idea of attributing the cough paroxysms of whooping cough to a nasal reflex is in entire accord with the numerous observations of other nasal reflexes producing either cough or asthmatic paroxysms.

The treatment could, under no circumstances, present any inconveniences. He, therefore, resorted to nasal insufflations of an impalpable powder, prepared with equal parts of boric acid and roasted coffee, a powder at once antiseptic and absorbent. This powder was insufflated by means of a quill, or a glass tube. It is best, however, to use the nasal insufflator made by Gallante, which divides the powder very finely, and prevents its accumulation on one fixed point of the mucous membrane. These small details have their importance. At the beginning of my experience I sometimes obtained no results at all, because the mothers did not understand how to make the insufflation properly, and amelioration was brought about as soon as I made them myself. This small operation is made twice a day, morning and evening. I treated thirty infants with nasal insufflations. Seven were less than one year old; seven from one to two years; six from two to three years; ten from three to eight years.

Of these thirty infants, thirteen had been already treated some eight to fifteen days with the syrup above described, with more or less marked improvement; but of a transitory character. The other seventeen were treated exclusively with nasal insufflations, without any other medication, except one or two emetics, in some of the cases, during the catarrhal period of the disease.

Of the thirteen infants treated with the syrup during the first period, from February 5th to the 19th, three were attacked with intercurrent pneumonia. Two infants, aged respectively seven and eleven months, succumbed. The third child, aged eight years, recovered. During the whole

period of duration of the pneumonia, the cough paroxysms ceased entirely; but returned again with their former intensity during the period of convalescence. From the moment that he began the employment of the nasal insufflations, no more complications were observed by him, and no more deaths occurred.

He began the treatment February 19th on the little boy of four years who was so intolerant of belladonna, and who had a paroxysm almost every hour, day and night. After forty-eight hours and four insufflations, the paroxysms fell to five or six per day, and about four per night. After six days he had not more than two paroxysms in the twenty-four hours, and those of little intensity.

As to the other children, the results were the same as described when the insufflations were well made. In a period of time varying from two to six days, the paroxysms of cough generally fell from fifteen and twenty to four or five in the twenty-four hours. At the same time they were diminished in intensity. Vomiting and epistaxes became very rare. The result occurred concurrently with a retrocession of the nasal catarrh. There was no further apparent discharge, the mucous membrane was less injected, and the mother remarked to me that the children carried the hand to the nose less frequently. The general condition became at the same time better in quite a marked manner. However, in about half the cases, once this degree of improvement obtained, the condition remained stationary, and it took another fifteen to twenty for the complete cessation of the paroxysms. It is true that among the poor, careless population, the hygienic conditions were deplorable, and the children would go out in wet and cold.

When called in time, I had recourse to nasal insufflations, from the beginning of the whooping cough, during the catarrhal period. In all these cases the malady was relatively mild, and a complete cure was obtained in eight to fifteen days—sometimes sooner. Notably in three cases, they had a veritable abortive action, the cough never assuming the spasmodic character of the whooping cough. It is possible that these cases were nothing more than simple catarrh; but nevertheless these three cases were constantly in contact with brothers and sisters already afflicted with the disease.

I had already treated eighteen infants with insufflations of the powder of coffee and boric acid, when there appeared in

the *Lemaine Medicale* of March 15th an article by Professor Grasset giving an account of similar researches made by Dr. Michael, of Hamburg. The latter, after having tried various powders, gave the preference to pulverized benzoine. The results obtained by him agree in a very marked manner with my own. I made a comparative trial of the powdered benzoine. It gave me results absolutely similar; but I did not succeed in obtaining radical cures with it in cases where the previously described powder ceased to be effective. The results are, therefore, less brilliant than claimed by Dr. Michael. I believe that the cause must be sought in the infractions of hygienic laws, which I have described above, and which, far from invalidating the value of insufflations, strongly corroborate their efficacy, since, even under such defective conditions, they have produced beneficial effects more rapidly than any other treatment known.

In résumé we may conclude: 1st, That the method of nasal insufflations constitutes the most rapid, the most efficacious and the most inoffensive treatment of whooping cough; 2d, It seems to prevent complications, vomiting, hemorrhages, denutrition, as well as the strange complications, such as pneumonia, better than any other method.

In the face of these encouraging results, it is to be hoped that these trials will be repeated by my colleagues.—*Journ. de Med. de Paris.*

Foreign Bodies in the Urethra and Bladder—Removal by Litholapaxy Evacuator with Large, Straight, Open-ended Canula.

BY DE FOREST WILLARD, M.D., of PHILADELPHIA.

Read before the Philadelphia County Medical Society.

My object in bringing before you the subject of urethral and foreign vesical bodies is simply to emphasize the value of the evacuator (ordinarily used in rapid lithotripsy to extract the calculous fragments), for moving other more or less solid substances that have found their way into the urinary tract, either by accident or design.

Foreign bodies enter by various routes. Projectiles may reach the viscus and remain in its cavity; bones may be driven in by crushing forces; foetal remains may ulcerate through from extra-uterine cavities; intestinal contents may

occasionally make their way into the bladder; but all these are either rare, or are accompanied by such traumatism that death frequently ensues.

The bodies that we will especially consider are those introduced through the meatus urinarius, urinary calculi being only incidentally considered.

The strong tendency for manipulation of this part of the body that exists from early childhood to decrepit old age, leads to many instances of misadventure. Think of a lad actually sliding a watch-chain down his urethra. Examples of inserted beads, pebbles, sticks, etc., are numerous in childhood. After puberty the tendency becomes more marked as the sexual desire increases. A few years later we find the morbid recluse, especially among the shepherds and monks of former centuries, resorting to intra-urethral stimulation with sticks or other hard substances to arouse the over-exhausted functions, waning from masturbation or venery. Yielding himself to his vile erotic feelings, the instrument often slipped from his fingers and was lost in the canal. Sexually insane must have been the shepherd who had used for this purpose his pocket-knife, after manual friction and urethral stimulation had proved unsatisfactory, until little by little, through hundreds of these indecent acts, he had laid open the entire penis along its dorsal aspect until the pubis was reached, and the penis hung in two halves, united only by the lower wall of the urethra. Then with a short stick he was able to tickle the very orifices of the ejaculatory ducts. This stick slipping into his bladder, became encrusted, and it was not until the pain became torturing that he confessed the cause. Pipe-stems, pencils, thermometer tubes, glass-rods, straws, needles, wires, twigs, hairpins, fruit-stones, and even forks and lockets, have all been found in the urethra, after introduction for stimulative purposes, or to relieve dysuria from stricture or other causes. In one instance a man introduced the sewing needle of the girl whom "he desired to fall in love with him."

At the present time we have fewer of these lecherous accidents, save from drunken debauchees: but the majority of instances occur from the use of old or improper catheters or bougies. Of course, these accidents are more frequently found in men than women, as the former are more subject to urethral disease, and are also more erotic; but there are instances in both sexes.

In children, small round bodies, as beads, etc., are found in the anterior part of the canal, while the longer instruments at all ages slip back to the membranous portion of the tube, or into the bladder.

Usually a long foreign body will find its way into the bladder in a few hours; rarely, two or more days may be required. In exceptionally rare cases, rounded bodies remain a long time in the urethra, the urine following a tortuous course around them, and, becoming encrusted, a pocket ultimately forms, or suppuration ensues.

It is not strange that catheters and other similar instruments are, broken off in the canal, when we learn of the recklessness of a man who used one gum catheter for twenty years, or of another who attached two portions of a silver tube simply with sealing wax.

A too short instrument has often eluded the grasp of the surgeon and slipped bladderward.

As to the recedence of instruments, which is strong and actual, there have been many theories. It does not seem strange to me that the compressor muscular fibres of the urethra, when stimulated to action by a body applied in front, should reverse their usual action as easily as do the muscles of the pharynx, œsophagus, intestines, etc. This act of swallowing a hard substance is aided by the erection of the penis, which in its subsidence (should the anterior end of the object become engaged), drives it further and further back with each successive engorgement. Tending to this same unfortunate end are all the manipulations of the part, in the patient's endeavor to extract the offending body.

Unfortunately for the safe extraction of these bodies, the surgeon has to meet with a large amount of deception upon the part of the patient, when the object has been self-introduced, and it is often impossible to obtain any reliable information either as to the presence of the foreign mass or as to its conformation. In broken bougies the surgeon should, if possible, have the other remaining fragment in his hand for measurement, or else secure one of similar size. Any object of peculiar shape should be accurately described, or duplicated. It must be remembered that while a patient may confess to the introduction of but one body, there may be several. The position in the canal must be thoroughly fixed. In the ante-scrotal region this is easily accomplished, and with the aid of a sound and a finger in-

troduced into the rectum, even the posterior urethra can be well examined, provided inflammation be not too severe. When possible, no manipulation should be attempted for extraction without the body being firmly secured from further recedence.

Ether is of the greatest value; but cocaine injections may answer for urethral work.

Treatment.—About one-tenth of inserted foreign bodies will be spontaneously expelled; but when the *vis-a-tergo* of the urine fails to wash out either a calculus or an object inserted through the meatus, the safest and surest plan is to attach to an ordinary litholapaxy evacuator (Bigelow's or other improved pattern) a large, straight tube, which is open at both ends. It contains a movable stylet for ease of introduction. The size should be the largest that the urethra will possibly admit (after nicking the meatus, if necessary), say French No. 29 or 30; American, No. 19; English, No. 16, for adults; children in proportion. The possibility of the passage of the body through the tube should be determined, if possible, by actual trial, provided a similar piece can be obtained. Rarely will any bougie larger than the above-named size be found in the bladder or urethra.

The method has been so satisfactory in my hands, as is proven by the collection of objects before you, that I always resort to it with confidence, to the exclusion of all other primary devices.

If lodgment has occurred in the urethra, the canal must be firmly closed by finger pressure behind the object, while the metallic tube is slid down and carefully caused to engage the catheter or other mass within its calibre, when the bulb of the instrument is slowly compressed until the water has distended the urethra to its fullest limit, thus liberating the body, when suction is suddenly applied while the penis is stretched forward. Unless the mass be firmly caught and imbedded in a pocket, this manœuvre rarely fails after a few trials. The quantity of water that can be contained in the urethra is so small that the body may require two or three efforts to withdraw it the whole length of the instrument. The water should be injected very slowly; but the suction current must be made forcibly. Inspection of the rubber tube can be made through the upper opening without detachment of the catheter.

Avoid employing forceps until unsuccessful with the above method: but when necessary to be used, the supe-

riority of the canula again asserts itself. The forceps can be manipulated through its calibre, and if the object be compressible enough to pass the bore, withdrawal can be accomplished without the slightest injury to the mucous membrane. Objects of larger size than this tube can seldom be withdrawn with safety by any method save cutting. Hairpins can be compressed through the walls of the urethra, and their points passed into the calibre, when they can be completely pushed within the bore and easily withdrawn.

Beads, peas, pebbles, etc., will easily enter the canula by suction. Catheters, wires, etc., will usually require the assistance of forceps. Barbed heads of grain can also be ensheathed and drawn by this device.

If the object has passed into the bladder, the evacuator becomes an even more essential aid. A straight instrument is not always easy of introduction; but the security gained against subsequent urethral injury abundantly repays for the trouble. If a flexible or spirally cut obturator is used, the introduction is rendered much easier. The tube is used first as a sound to discover the offending body, when the bulb of the evacuator is first slowly compressed, so as not to disturb the fragment. Suction should always be made quickly, so as to draw the body with force. Failing, the water is next ejected with more suction being again rapidly applied. The hard substances will not be calculous fragments, and, unless consisting of broken glass, will not be as angular. If the body is rounded, and of size that can pass the bore, it will in a few moments be found in the bulb. If very long, like a catheter or pencil, or wire, the chances are not so good that it can be brought into line with the calibre of the tube. As a bougie ordinarily breaks at or near the eye, however, its passage is more than probable. Failing, after ten minutes of gentle trial, a lithotrite should be introduced if the body is a bougie or pencil, and is capable of being cut or pinched in two, and the division made. A cutting lithotrite, like Caudemont's, is manufactured, but I presume is seldom found among the paraphernalia of surgeons, and the fenestrated instrument of Thompson is far safer. If the bougie is old and brittle, as is presumptively the case, such division with a lithotrite is easily accomplished. The segments can then be sucked out, and their total length carefully compared with the remaining portion or lost body. Every particle must be secured, lest

it form the nucleus of a future calculus. Even the broken jaw of a lithotrite might be drawn into the bore.

If the surgeon has not the straight tube with open end, which I advise, he may use the ordinary straight evacuating tube. Rounded bodies, and pieces of bougie small enough and flexible enough to enter the side opening, can often be secured with ease; but long or rigid pieces can only be drawn through the open-ended tube. This tube has the disadvantage that the point must be kept just inside the neck of the bladder. If pushed too far, the posterior bladder wall flaps against it; if withdrawn too much, it is concealed in the prostatic portion, and makes no suction upon the vesical contents. Its safety from impaction of fragments in the eye, however, more than counterbalances this slight trouble; since, in the ordinary evacuating tube, a large fragment often can not be dislodged from the eye, and lacerates the urethra during withdrawal.

Should these manipulations fail (and, if they have been carefully conducted, no injury need have been done to the bladder), I show you now two forms of forceps which I have had made of just sufficient length to be slightly protruded from the end of the tube. In the one, the jaws open by a spring, as in the old Halles' forceps; and in the other the jaws are worked by handles, as in the Mathieu and Gross, and "alligator" patterns.

Careful attempts can now be made to seize the body and extract it through the catheter. If small enough to be brought through, it is a great satisfaction to know that no possible injury can be done to either the neck of the bladder or the urethra, as is so likely to occur when a body is extracted in the jaws of a lithotrite. Necessarily only a small proportion of introduced objects can be removed per urethram, and I should lay it down as a rule that any foreign body too large to pass the calibre of this No. 29 tube, unless it be very soft and pliable, should be removed by lithotomy, either perineal or suprapubic. Lithotomy has its dangers, but laceration is worse.

The suprapubic is at present the fashionable operation, and it certainly presents many inducements in its favor. The median perineal operation, however, is a safe one, and gives excellent results. No important structures are severed, and there is seldom troublesome hemorrhage if the raphè is closely followed. By either of the routes great care must be exercised in the search, if the object be sharp-

pointed, lest a perforation be made. The inflation of the rectum in order to lift the bladder must be dispensed with if the object is sharp-pointed. The upper route gives more room, and while there is a slight risk of wounding the peritoneum, yet we must remember also, in the extraction of objects, as well as calculi, by the perineal route, that the recto-vesical fold of the peritoneum is in close proximity to the neck of the bladder, and may not escape involvement in the subsequent inflammatory action.

If the walls of the bladder were only of sufficient strength to warrant their immediate sewing with catgut or silk, and permit primary union under strictly antiseptic dressings, while the urine were drained off below, the suprapubic route would certainly be decided the better one; but as this is not the case, there is still room for honest differences of opinion in the selection of an operation. For the present, we must be content to drain the suprapubic wound.

In the absence of an evacuator, the expulsive force of the urine is often sufficient to dislodge a urethral impaction, especial, if the meatus is closed for a moment, so as to obtain the full dilating power of the water. Failing in this effort, if the foreign body can be located and the urethra closed, a large injection of sweet oil may be thrown in, after a hot bath, and the largest possible bougie carried down to the body to stretch the membrane, while pressure from behind is made either by the surgeon's finger or by the expulsive efforts of the patient's bladder.

Should lodgment be made in the fossa navicularis, the spoon of the ordinary pocket case can often be hooked behind the object and assist in coaxing it forward. A hairpin, or wire doubled upon itself and slightly bent, or a blunt curette, makes also a valuable extractor. An excellent instrument also is the articulated scoop of Leroy d Etiolles, which, being introduced past the foreign body, has a mechanism by which its tip is then bent at right angles to the shaft, and is capable of making strong but dangerous traction. The abruptly short-beaked sound which I always use for sounding the bas fond of the bladder, can sometimes also be "wormed" past the obstruction, and the effect its dislodgment. I show you here seven prostatic stones that I have thus extracted, aided by the force of the urine. Long urethral forceps are of great service, as they serve partially to protect the canal during extraction; but they do so far less effectually than does the straight tube before de-

scribed, which should be placed in every evacuating set. Hunter's or Civiale's three bladed forceps are occasionally used; but I always look with abhorrence upon dragging any object forcibly through the canal. A dangerous instrument is the urethral lithotrite of Reliquet, as *incision* is infinitely safer for all rough and large bodies.

When the substance lies posterior to the triangular ligament, gentle attempts should be made to push it into the bladder, only after the evacuator has failed to dislodge it. If necessary to operate, the raphè should be closely followed, while a large staff is held in position to indicate the location of the obstruction and of the tube.

An incision in front of the scrotum is easily made, and should be closed after the removal of the body by catgut or quilled sutures. Treated antiseptically, and with either a retained catheter, or with frequent catheterizations, immediate union may be confidently expected. The quilled suture gives more perfect rest by its splint action.

If a stricture exists, and the foreign body is lodged behind it, dilatation or free external incision of the stricture should be practiced.

In former days, the instruments for search and removal of these objects, greatly exceeded those of the present day, when operative procedures are more common. The "duplicators" of Mercier, and of Charrière, were intended to fold up any soft substance, as a very flexible bougie. Long, stiff bodies were seized by "redressors" or "basculours," forceps with bevelled blades, constructed so as to rotate the body so that its long axis would correspond with that of the instrument. Occasionally a small lithotrite will answer for either of these purposes; but the great danger of laceration during withdrawal through an unprotected canal must never be lost sight of.

The curved forceps of Cusco or Voillemier are, perhaps, as useful in the bladder as in the membranous urethra; but I am afraid to use them for the reasons already named, especially since I have found suction so much safer and also more effectual.

For the removal of pin, bonnet pins, or needles, from the urethra, the point can sometimes be imbedded in a wax or gum bougie; but it is easier washed out with the evacuator. If immovable, the point can be pushed through the walls of the urethra, and by sharply bending the penis, the head after reversal drawn through the tube by suction or by

forceps. It is seldom necessary to cut the pin when this method is used.

If a piece of nitrate of silver is lost from a porte-caustique, the evacuator, charged with salt water, should be at once used if the force of urination does not expel the mass.

Many ingenious devices have been practiced in the absence of instruments, to rid the urethra of impacted bodies; but the knife is far safer than rough instrumentation. In the absence of the straight evacuating tube, an extra sized catheter, with open end, and a large syringe, might prove useful.

Blood-clots in the bladder are practically foreign bodies, and are best removed by gentle suction through the curved evacuator, or through the blood catheter, which I here show, the large eye of which is closed down during introduction by a spirally-cut obturator.

Catheter accidents are so frequent that instruments should be often examined. Only recently I found that the distal extremity of my much-used pocketcase instrument could be slipped from its screw thread by a very small amount of traction. Old gum bougies should be thrown away as soon as they begin to lose their elasticity.

To summarize:

1. The litholapaxy evacuating tube, large, straight, and with open end, is the surest and safest instrument for the removal of foreign bodies from either urethra or bladder.
2. The fenestrated lithotrite should be employed to break up all bodies capable of division.
3. Incision of urethra or bladder is safer than a tear of the neck of the viscus or the canal.
4. The suprapubic and median perineal are the safest routes of entrance to the bladder when suction fails.
5. Forceps should be used with the greatest care, and always through a straight tube, which insures protection both to the urethra and neck of the bladder during both exploration and extraction.

Chicago Pathological Society.

I. N. DANFORTH, PRESIDENT.

Reported expressly for the CINCINNATI MEDICAL NEWS.

Dr. M. J. Mergler read a paper on "The Pathology of Leukæmia," referring to the controversy between Bennett

and Virchow as to their priority in establishing the nature of the disease.

The lesions which take place in the blood are a persistent progressive increase of the white cells, and a corresponding change in the color of the blood; the ratio of the white to the red in some of Virchow's cases being two to three.

The red corpuscles are also diminished, absolutely as well as relatively. After death colorless clots are often found in the large vessels.

The spleen is increased in size and weight from an increased vascularity, multiplication of cell elements and the formation of new connective tissue.

The lymphatic glands also undergo similar changes to the spleen.

The liver is usually enlarged and occasionally nodulated. The kidneys are generally normal; but there may be an accumulation of lymph cells along the tubules and glomeruli. E. Neumann has described certain changes which he has observed in the bone-marrow. In the central cavities of long bones and the cancellated structure of others, the marrow assumes a purplish, yellowish or grayish discoloration, and the bones may be enlarged. The same cellular elements were found by the microscope as exist in the leukæmia blood. There was also an absence of the fine vascular network of normal marrow; only the larger arterial branches remain, and their walls are infiltrated with lymph cells. He holds that the changes in the marrow are the only constant lesions of leukæmia.

Dr. H. M. Lyman said the great difficulty lies in the fact that we do not as yet fully understand how blood is formed. So far as recent researches throw any light upon the subject, the white corpuscles appear to be formed in the lymph glands, and the red corpuscles, not from the white nor from the lymph, but principally from the red marrow, certain cells of which, by a process of budding, throw out protuberances, and these becoming detached, constitute the red corpuscles. But we do not know positively how these get into the general circulation.

There are several different varieties of anæmia described, the exact relation between which we do not know. There are, however, two principal classes: first, when the white corpuscles are increased relatively and absolutely; and second, where there is no increase relatively or absolutely, of white corpuscles, but a general diminution of all the blood ele-

ments. In some cases we have a great enlargement of the organs which form the white corpuscles, as the lymph glands, spleen, etc., while in others there is no enlargement of these organs, and the condition can be determined only by an examination of the blood. The appearance of striæ (which are found to be white corpuscles) along the retinal vessels is a valuable diagnostic sign of an increase of white corpuscles in the blood.

Some of the symptoms of leukæmia are produced by the diminished power of the blood to carry oxygen through the system, and hence the patient suffers from exhaustion and shortness of breath; for the same reason there is a tendency to the disposition of fat in different parts of the body and the organs undergo fatty degeneration; the walls of the vessels undergoing the same change permit of frequent hemorrhages.

The primary cause of these changes in the blood is not known. They may follow malaria, hemorrhages, or other depressing influences; but what peculiar conditions produce these changes no one can say.

Dr. J. J. M. Angear agrees with Dr. Lyman's statement that the origin of the blood is not well known; but we do know that a person having eaten a meal, a portion of it is taken up by the lacteals, and a portion by the blood-vessels; and that if we now examine the lacteals we find nothing in the form of cells; but after the fluid has passed through the glands we begin to find cells, and they increase in number as we approach the heart. Flint says the white corpuscles are multiplied greatly a few hours after a large meal, and diminish greatly on fasting, and this goes to show that the white corpuscles must bear some *relation* to the red. We might compare a red corpuscle to a human being—it is born, has a period of infancy, youth, manhood, old age, and finally dies. Now, suppose some influence is brought to bear on these corpuscles while in their infancy, so that, instead of growing strong and reaching maturity, they become sickly, the result is white corpuscles, pus, or whatever you choose to call them, and resulting from this sickly degeneration leukæmia, pyæmia or kindred diseases.

In reference to the formation of red corpuscles in bone marrow, there is this in its favor: whenever there is a great drain on the system marrow is diminished—but is it drawn on to a greater degree than the fat? and is it taken to make the red corpuscles? The first change we see in an egg in

the process of development is the appearance of the blood-vessels, before the skeleton or red marrow is formed.

Dr. C. W. Earle said that he had listened to a paper by Dr. Cameron, of Montreal, bearing on the influence of leukæmia on pregnancy. Dr. Cameron said four cases were reported in which this disease had occurred in pregnant women; but none in which a leukæmic woman had become pregnant. In none of the cases reported had the relative proportion of the white and red corpuscles been mentioned. He then reported a case in which a woman suffering from leukæmia became pregnant, giving the relative proportion of white and red corpuscles; but while the relative proportion of the red corpuscles was greatly diminished in the mother, that of the child was normal.

Dr. Hoadley said that ninety-five per cent. of the marrow was yellow fatty matter and, that in emaciation this was absorbed, but that the red marrow was unchanged. We have in the embryo red corpuscles long before we have red marrow, and it would seem that there must be some other process for their formation. He believes the blood is the formative agent of the red corpuscles, and inclines to Dr. Angear's view of their development from the white.

Dr. Lyman said there was a difference between the mode of formation of the red cells in the foetus and the mature animal. At first they are formed from the embryonic cells the same as the blood-vessels, and are nucleated; but later from the red marrow, etc., and are non-nucleated.

Dr. Danforth says the blood-vessels are formed, as Dr. Lyman explains, from the coalescence of the walls of the embryonic cells; but the corpuscles are formed from the nuclei of these cells, and they may perhaps multiply by subdividing or budding.

Dr. Patton says the Germans make two varieties of this disease, the splenic and the lymphatic. In the first the spleen is greatly enlarged and the lymphatic glands slightly. In the second the lymphatic glands are greatly enlarged. He thinks where the lymphatic glands show the greatest enlargement there does not seem to be so great a disproportion between the red and white cells as is the case where the spleen is enlarged and the glands but slightly. Considers the granular appearance presented by the white corpuscles under the microscope a post-mortem change.

Dr. L. C. Borland reported a case of

DOUBLE HYDRONEPHROSIS,

The diagnosis of which was made at the autopsy. The patient, a woman, was admitted to St. Luke's Hospital for prolapse of the uterus. No connected history could be obtained, and the urine, through some misunderstanding, was not examined. A friend said the first trouble was about two months previous, and consisted of a falling of the womb. There was a vile discharge from the womb and rectum—nates and perineum were excoriated. She died within a few days in a convulsion. Dr. Danforth, who made the autopsy, said there was complete procedentia and an abdominal tumor, apparently more in the right than in the left side. The kidneys appeared like two great watery cysts. The right kidney was about the size of a man's head, lobulated like a multiple ovarian tumor, walls thin and translucent, and contained about a quart of amber-colored fluid, with a urinous but not offensive odor. It contained albumen, epithelial cells and Drysdale's corpuscles, which resemble very closely those of an ovarian tumor. These corpuscles from the kidney were, however, he thinks, larger, and the yellow point of fat a little more highly colored than is the case with the corpuscles from the ovary. The left kidney presented some of the original renal structure. It contained less fluid than was found in the right. The fluid was bloody, and contained about three-fourths by volume of albumen. The ureters and bladder were enlarged, but there was no ulceration, no twisting of the ureters, and no change in the bladder or elsewhere, which he could assign as a cause for the trouble, without it was the pressure of the prolapsed uterus on the ureters.

Dr. Skeer referred to a similar case in which the diagnosis was made after death. The right ureter was found plugged by a calculus; left kidney normal.

Dr. Hoadley said the remarkable point about the case was its being a *double* cystic degeneration. If but one kidney had been affected the treatment would have been removal.

The kidneys of Dr. Borland's case were exhibited.

Dr. Danforth showed a specimen of diabetic urine—sp. gr. 1045, a pint of urine on evaporation left a residue of one ounce solid saccharine matter. About one hundred and ninety ounces were passed daily.

W. L. COPELAND, *Secretary*.

November 14, 1887.

Selections.

Treatment of Typhoid Fever in the Philadelphia Hospitals.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

DR. PEPPER holds that there is no disease more influenced than this in its later course and result by the management of its initial period. Whenever there is the least suspicion that typhoid fever is beginning, the patient should have the benefit of the doubt, and from that moment should be treated with strict thoroughness. Sometimes this will induce abortion of the case, for it is one of the diseases which is, so to speak, self-perpetuating, owing to the continual development of the *materies morbi* in the intestinal canal so long as the contents afford a suitable culture medium.

This condition is much affected by the diet, and by agents which influence the lesions of the intestinal glands. It is well to repeat that from the earliest moment we must insist on absolute rest. Much harm is done by postponing for two or three days the necessary confinement to bed. So should an absolute restriction of diet be imposed at once. It seems to Dr. Pepper that the intestinal canal is kept in the best condition when from the earliest hour the diet has consisted exclusively of milk, light gruels or broths, and pure water. Milk may seem to disagree, but it will then usually be found that it has been given in too large amounts or at too short intervals, or that to enable it to be digested it must be diluted or peptonized. For patients with typhoid fever must be fed, not on theory, but according to the observed effects of the food given. Tympany and diarrhœa are often the result of excessive or improper feeding, although more commonly they may be caused by the enfeebled state of the muscles of the intestinal and abdominal walls, and by the lesions of the mucous membrane. Under the influence of the unqualified dictum that fevers should be fed, a dictum much more universally applicable to typhus than to typhoid fever, many cases of the latter are injured by injudicious feeding. Not only may tympany and diarrhœa be promoted thereby, but the accumulation of imperfectly digested organic matter in the bowels may favor the multiplication of the specific ma-

teries morbi, and also the development of ptomaines. This question of feeding is, therefore, the fundamental one in typhoid fever, and should be treated with caution and minute attention in each case.

Next in importance seems the administration of some remedy directed to the invariably present lesion of the intestinal glands. Drugs which exert a sedative astringent effect, which do not hurt the stomach, and which are antiseptic either directly or by their action on albuminoids, would seem to be indicated; and Dr. Pepper thinks that some such remedy should form a part of our treatment of every case of typhoid fever, from the earliest hour when we suspect the nature of the case. Creosote, carbolic acid, iodoform, mineral acids, especially muriatic and sulphurous, and nitrate of silver, suggest themselves. In the great majority of cases he much prefers nitrate of silver, and since he revived the use of the remedy in typhoid fever it has been employed so extensively and with such admirable results as to have established its value. It is given from the outset, in doses of gr. $\frac{1}{6}$ to $\frac{1}{3}$ gr. thrice daily, combined with small amounts of opium, or belladonna, or nux vomica, according to special indications. He has come to believe that the appearance of dangerous symptoms is rendered less frequent, and the entire course of the disease rendered more favorable, by the early use of this remedy in conjunction with an early insistence on absolute rest and carefully adjusted feeding.

When the typhoid symptoms become pronounced, especially the dry, brown, tremulous tongue with weak heart and paretic tympany, he substitutes, or adds, turpentine. When the tongue remains moist, but is flabby and white coated, the bowels torpid and the secretions scanty, the mineral acids with strychnia in solution seem indicated. Space forbids mention of the obvious indications in certain cases for other remedies of this group. Alcohol is required sooner or later in most cases of typhoid fever, yet he never prescribes it except when definite indications call for it. These indications are sought in the character of the cardiac action, of the nervous symptoms, of the digestion and of the pyrexia. By withholding it until called for, and then giving it in small doses, and by cautiously increasing the dose and strength of the preparation used, we secure all possible benefit, and avoid the harm which follows here, as elsewhere, its excessive or untimely use.

Nearly always also there arises in the course of typhoid fever the necessity of controlling the pyrexia. But this necessity will be less frequent in proportion as the elements of treatment already insisted on are early and thoroughly attended to. So long as the temperature remains reasonably low, $102\frac{1}{2}^{\circ}$ to 103° , and no nervous or cardiac symptoms appear attributable to the mere pyrexia, we need pay no special attention to it. But at any time, even during the earliest days, the fever may reach a point requiring interference. If quinine has been given in moderate doses, as is often the case, one or two full doses are now used, but recent experience had led to a preference for antipyrin when only an occasional antipyretic effect is required, or to the external use of cold water by sponging or affusion when the tendency to hyperexia shows more obstinacy.

Dr. Osler believes a plan of armed expectancy to be, in the present state of our knowledge, the most rational. The majority of the cases require little or no medicinal treatment. The routine of a restricted diet under the watchful care of an intelligent nurse, meets the *indicatio morbi*.

No initial purge is given, as the cases are never brought to hospital very early, and constipation is not dreaded. An acid mixture is sometimes ordered, or dilute hydrochloric acid is added to the water, which is given freely. As it is possible that the defective elimination of the products of regressive tissue changes may be, in part at least, the cause of the so-called typhoid symptoms, every effort is made to keep active the skin and kidneys. Repeated spongings and an abundance of fresh cool water to drink, answer the purpose.

A milk diet is ordered—about three pints in the twenty-four hours. Very exceptionally it has to be artificially prepared. An examination of the stools will often indicate if too much milk is taken, or if it is not digested. Warm milk is less apt to produce flatulence. Broths and beaten-up eggs are allowed in mild cases.

When the fever reaches 103° to 104° , the spongings are more frequently used. If it rises higher— 104° – 105° —the wet pack is ordered, or a dose of antipyrin or antifebrin, either of which acts promptly. The cold-water treatment is specially indicated in those cases with profoundly ataxic symptoms, though all the features in this state are not due to the pyrexia.

For diarrhœa, when excessive, aromatic sulphuric acid,

bismuth or naphthalin is ordered. For tympanites, turpentine stupes, turpentine internally, creosote, or naphthalin. Constipation is disregarded unless it persists longer than seven or eight days, when a saline purge or an enema is ordered. The severe headache of the early stage may demand leeches. Bromide or chloral will usually overcome the troublesome insomnia of certain cases.

When there are indications of heart failure, alcohol is given, and, if necessary, in large doses. Camphor, strychnine and ergot supplement, but can not replace, alcohol in this condition.

Should hemorrhage occur, opium is given and an ice-bag placed on the abdomen.

A return to the ordinary diet is permitted ten or twelve days after convalescence is established.

JEFFERSON MEDICAL COLLEGE HOSPITAL.

Dr. J. C. Wilson treats his cases of enteric fever by the systematic use of laxative doses of calomel during the first ten days, and by carbolized iodine, as originally suggested by Professor Bartholow, throughout the course of the disease. The most careful attention is given to the details of nursing, dietetics and hygiene, and symptoms are treated as they become prominent.

Due regard being had to the peculiarities of individual cases, the general plan is as follows :

Upon the evening of admission the patient receives seven and a half to ten grains of calomel in combination with ten grains of sodium bicarbonate, at a single dose. If the case be still in the first week, which is not usual with hospital patients, this dose is repeated every second night until its third administration ; if already in the second week, a single dose only is given. After the tenth day it is given cautiously or omitted altogether. If there be constipation, the first dose of calomel is followed by two or three large stools, mostly of the consistency of mush, the later doses by stools decidedly liquid. Diarrhœa is not regarded as a contra-indication. On the contrary, it almost always becomes less troublesome after the action of the mercurial. During the subsequent course of the disease, constipation is not allowed to continue at any time beyond the third day ; but is relieved, as a rule, by an eight-ounce enema of warm, thin gruel, slowly injected, or exceptionally by a five or seven and a half grain dose of calomel ; the choice being influ-

enced by the character and prominence of abdominal symptoms. Under this plan of treatment diarrhœa is not commonly excessive. When necessary, it is treated by one grain suppositories of the aqueous extract of opium.

From the beginning the patient receives at intervals of two hours during the day, and three hours during the night, and immediately after the administration of nourishment, two or three drops of a mixture of two parts tincture of iodine and one part pure liquid carbolic acid. This dose is administered in an ounce of iced water.

Unless the temperature exceeds 104° F., the fever calls for no special treatment, beyond cold sponging, which is practiced in every case at least twice in the twenty-four hours. A higher temperature receives prompt attention.

After trial of the list of new antipyretics, the choice is antipyrin. It is used in single doses of ten to fifteen grains, and repeated when the temperature again rises beyond 104° F. If this remedy fails of its effect, large compresses of several thicknesses extending across the chest and abdomen from the neck to the pubes, and freely wet with iced water, are used. The gradually cooled bath is held in reserve.

Alcohol has no necessary part in the routine treatment of enteric fever. Many cases do not require it; some are unquestionably benefited by it; while to a considerable proportion it is an absolute necessity. Dr. Wilson believes that the employment of alcohol in the treatment of fevers should be regarded not as a dietetic, but invariably as a medicinal measure.

Space does not permit the discussion of the treatment of complications, nor of the management of convalescence. If perforation occurs during or after the period of defervescence, namely, in the fourth week or later, laparotomy should be performed.—*Phila. Medical News.*

Cancer of the Larynx.

THE Paris correspondent of the *Lancet* of November 26, 1887, writes that M. Tillaux showed a patient at the Academy of Medicine upon whom he had performed tracheotomy five months ago for the relief of suffocation due to cancer of the larynx. Since then there has been, as is generally the case soon after an operation of the kind, a partial retrogression of the tumor, and the patient has resumed his occu-

pation, having recovered his appetite, strength and spirits, and gained seven pounds in weight. M. Tillaux said he made this communication because the question as to the best line of conduct in such cases is still open, as is shown by M. Schwartz in his thesis on the subject. Should a radical cure be attempted by extirpation of the larynx, or should the palliative operation of tracheotomy be adopted? M. Tillaux said that he thought the history of his case showed that tracheotomy was useful in some cases, and for his part he was not disinclined to prefer it, as a rule, to extirpation.

Professor Verneuil considered that the superiority of tracheotomy over extirpation was incontestable. With the latter operation, when the patient does not die from the immediate consequences, he speedily succumbs to a relapse. In one case of epithelioma, tracheotomized by M. Verneuil a year ago, the tumor was so considerable that it was difficult to understand how it was possible to breathe at all. After tracheotomy, or rather Krishaber's operation of laryngo-crico-tracheotomy, the patient resumed his ordinary business, and is even able to speak pretty distinctly when the opening of the canula is occluded.

M. Richet mentioned a similar case.

M. Labbé did not agree with his colleagues. He said that he had, like them, performed tracheotomy for the relief of laryngeal cancer, and should no doubt do so again. But he could not admit this to be the only operation possible, and that there are no cases in which we ought to practice extirpation of the larynx. As a rule, extirpation is done too late, upon subjects already tracheotomized, and for the relief of aggravated symptoms. It is reasonable to suppose that better results would be obtained if the operation were performed as soon as the cancerous nature of the growth is recognized, and before there is any secondary infection of the neighboring glands. The gravity of the operation is not so considerable as is generally supposed. In four cases of the kind M. Labbé had had three absolute operative successes, the patients living for different lengths of time without relapse. In the fourth case death was due to the accidental negligence of the nurse, who omitted to change the canula, as had been directed; in consequence the patient was nearly asphyxiated by the accumulated secretions, and died a fortnight later of septic pneumonia.

The thesis of M. Schwartz (*Thèse d'Agrégation*, 1886),

the most impartial monograph upon extirpation of the larynx in the French language, necessarily serves as a groundwork for all general reviews of this question, and the current number of the *Bulletin Medical* contains a good *résumé* of it by M. Maurice Hache, who brings the statistics of M. Schwartz up to date by the addition of recent cases. In one hundred and five observations quoted of total extirpation of the larynx, death took place fifteen times within the first week from hemorrhage, collapse, embolism or septicæmia, or other causes; twenty times during the second week from pneumonia or broncho-pneumonia. To these are added one case of death from pulmonary gangrene on the twenty-fifth day, five of late pneumonia, and two of exhaustion, making forty-three deaths in all from the operation itself, a mortality of forty per cent. Twenty-eight of the remaining relapsed, two before the expiration of three months, six others before six months, eight before a year, two between the first and second years, and two before two years and a half. Thirty-four patients are recorded as cured—fifteen after six months' observation, eight more after less than a year. One was published fifteen months; one, sixteen months; two, from two to three years; three, from three to four years; two, five years; and one, ten years after operation. Counting those as cured who have lived two years, there have been eight certain successes in one hundred and five cases. Of twenty-seven published cases of partial extirpation, in one there had been no relapse after eighteen months, in another the cure was definite after seven years. Seven other operations had been successful, but the time elapsed at the date of publication was under a year and a half. From a functional point of view the condition of those who have been operated on is less unsatisfactory than might be supposed. Deglutition is restored sometimes within a week, nearly always after a couple of months; and by means of Gussenbauer's artificial larynx, there is a very fair restoration of the voice.

Excision of the Larynx for Malignant Disease.

THE operative treatment of malignant disease of the larynx is an essentially modern development of surgical art, and in spite of one or two brilliant but exceptional triumphs, it has till quite recently been marked more by boldness of

conception and execution than by solid success. That, however, is no more than could at some time have been truly said of many other provinces of surgery in which the knife, which at first was little better than a lethal weapon, is now an instrument of real and lasting good. The larynx was first completely excised little more than twenty years ago by Dr. Patrick Heron Watson, of Edinburgh, in a case of syphilitic stenosis which directly threatened the patient's life; and in 1873 total extirpation was successfully performed by Billroth for cancer. Since then the operation has been done by many surgeons, but the results have, on the whole, been extremely discouraging.

From Mr. Butlin's recent analysis in his *Operative Surgery of Malignant Diseases*, of Hahn's valuable statistics (Volkmann's *Vorträge*, No. 260, 1885), we learn that seventy-four cases of excision of the entire larynx for new growths have been recorded: in three the disease was respectively tuberculosis, papilloma and polypi. Of the seventy-one malignant cases, twenty-five died within the first fortnight, and five within six or seven weeks after the operation; death was due, in a large majority of instances, to pneumonia or purulent bronchitis, and could in no case be attributed to recurrence of the disease. Thus, there appears to be a mortality of about forty per cent. directly due to the operation itself. Not one of the cases in which the disease was sarcoma and not carcinoma died. Of the sixty-five cases in which the larynx was completely excised for carcinoma, thirty died from the immediate, or almost immediate, results of the operation; as in the case of abdominal sections, the death-rate has slightly diminished recently, through improvements in operating and after-treatment. A few of the cancer cases died of collapse or hemorrhage; the remainder succumbed to the pulmonary complications above mentioned. The direct entrance of air into the trachea endangers the lungs, as after tracheotomy; but the severe type of inflammation generally observed after excision of the larynx is distinctly septic, and is due to the escape of discharges from the wound into the trachea; the patient, moreover, is always in a more or less enfeebled stage of health.

Resection of the larynx or removal of a portion of the organ was first performed for epithelioma by Billroth in 1878; the patient survived the operation six months, when he died of recurrence of the disease. In another case, in

which the left half of the organ was excised by Reyher, of St. Petersburg, in 1880, the patient was alive and free from recurrence fourteen months after the operation. At the International Medical Congress of London in 1881, however, the late Dr. Foulis, of Glasgow, who read a paper embodying the whole experience of the profession on the subject up to that date, argued strongly in favor of complete, as against partial, excision, on the ground that whilst little, if at all, more dangerous in itself, the risk of perichondritis is avoided, and the disease is more thoroughly eradicated. Subsequent experience has not borne out this view. Owing to the great and apparently irreducible fatality attending it, complete excision of the larynx has been looked upon with growing disfavor by surgeons, whilst the removal of a portion of the organ in suitable cases has, during the last few years, been shown to be not only much less dangerous in its immediate consequences but also more effectual in restoring the patient to comparative health and comfort. The progress that has been made in this direction is largely due to Dr. Eugene Hahn, of Berlin; and one or two of our own countrymen have also operated with success so far as can be judged in the meantime.

The following are the results of partial excision up to the present time: In twelve cases, where half the larynx was removed—in ten cases for carcinoma, in two for sarcoma—only one patient died from the direct effects of the operation. The wound is far easier to dress and the patient's condition less desperate than when the entire larynx is excised. In six cases the larynx has been completely, and in two partially, removed for sarcoma. The after-history of one of the complete operations is lost; of the remaining six, it appears that one was quite well and free from recurrence six years after operation; one was well two years after; one died of phthisis a year and a half after excision of the larynx, without a sign of recurrence of the local disease; one died of recurrence of the sarcoma seven months after operation; and one fifteen months after. In the two recorded cases of partial excision for sarcoma, one was free from recurrence "some time after the operation;" one died ten months after from pulmonary complication, without recurrence of the new growth. Of the thirty-five cases of excision for carcinoma which recovered from the operation (excision, as above noted, proved directly fatal to thirty patients), twenty died within a few months from re-

currence. Of the remaining fifteen, the history of one case is lost; two died of pneumonia at the end of three and four months respectively; seven cases were yet alive when these statistics were prepared, and free from recurrence at periods ranging from fourteen months to four years. Thus only one patient could be considered cured. Out of seven partial excisions of the larynx for cancer, one died of the operation; three died of recurrence within seventeen months, and in the three which remain there was no recurrence, but only fourteen months had elapsed in one of these, eleven in another, and an unrecorded space of time in the third. It must be observed that many of the above cases appear to have been badly selected, the patient being in an unsatisfactory state of health, or the disease much advanced. Unfortunately the survivors, not very numerous at the best, too often find but little comfort in life after the operation. Solis-Cohen remarked at the International Medical Congress in London, in 1881, that recovery and mere survival after the operation are two different things; and Sir Morell Mackenzie observed that a patient after extirpation of the larynx was usually in a condition "of great misery." Professor Lefferts, of New York, stated that the "main reason for the patient's subsequent discomfort, not unusual, however, in like cases, was the impossibility of closing the large defect in the neck, by any form of artificial apparatus, so as to permit of perfect deglutition." Since 1881, cases have been noted where the patient's condition was not in any instance altogether unsatisfactory. Still, the frequency of fatal lung complications above recorded is suspicious. The loss of voice can be remedied, more or less, by the use of an artificial larynx. After partial operations the patient can often swallow easily within a few days; but after complete excision, with extensive removal of the surrounding parts, deglutition may be impossible without assistance, and the patient may need to be fed by means of a funnel and tube. Altogether, excision of the larynx is a gloomy subject to contemplate. For sarcoma, partial or even complete removal is not very unsatisfactory, provided that the disease has not advanced too far. Partial excision for carcinoma is also no desperate operation, but it has not been performed with sufficient frequency to allow of a very decided verdict. As to complete excision for carcinoma, it is highly unsatisfactory. As a rule, it appears to mean death; as an exception, it signifies a short but harassed

lease of life, with constant fear of recurrence and of lung complications. Truly, a patient under such conditions may say of his life, like the Duke in *Measure for Measure*, "If I do lose thee, I do lose a thing that none but fools would keep."—*British Medical Journal*.

Diseases of Women.

THE CAUSES AND TREATMENT OF BARRENNESS.

THOMAS MORE-MADDEN, M.D., F.R.C.S. Ed., Dublin, Ireland (*Med. Record*, report of International Medical Congress), said :

Few gynecological questions come so constantly before us, and none probably are of greater practical importance, than those connected with sterility, involving, as they do, not merely the physical health of the patient, but also in many instances affecting the happiness and welfare of married life. For, at least in the country where my practice lies, child-bearing is still generally, and I believe rightly, held to be one of the chief functions of a woman's conjugal life ; while to be sterile is commonly regarded as the protean source of marital troubles.

In this paper will be found, in tabular form, a statement of the causes of sterility in five hundred and twenty-eight of the cases of infecundity, occurring in married women within the child-bearing period, which have come under observation in the gynecological department of my hospital. The cases may be roughly divided into two classes.

(1.) Those in which barrenness is caused by sexual impotency or some physical impediment from the vulvar orifice to the ovaria.

(2.) Cases of true sterility, or conceptive incapacity from deficiency congenital or acquired structural disease, arrested developments, supra-involution, etc., of the uterus, or from analogous morbid conditions of its appendages.

(3.) Cases of barrenness from constitutional causes.

(4.) Cases in which the causes of infecundity were apparently moral rather than physical, such as sexual incongruity, etc.

According to this table the most frequent cause of sterility is stenosis of the cervical canal. And as I believe the operative treatment of such cases, simple as it is deemed by some, requires more consideration than it generally receives,

and frequently proves worse than useless from the disregard of certain details and precautions which I consider essential, I venture to recommend the use of a method of procedure and the adoption of instruments which I have found advantageous in the curative treatment of stenosis in three hundred and eighty cases of obstructive dysmenorrhea and sterility traceable to this cause. During the present session seventy cases have been treated in my hospital, and in most I have had the able assistance of my friend Dr. Duke, obstetric physician to Stevens Hospital, Dublin.

The essential features of the method of treatment are the separation, by cutting and simultaneous forcible expansion of the affected parts, followed by dilatation during the period of cicatrization, so as to prevent their subsequent contraction, and thus to secure the permanent potency of the erst occluded passage. To obtain this result I use three instruments, viz., a special form of uterine director which can, generally speaking, be introduced into any cervical canal, however narrow, and along which a serrated, triangular, guarded knife is made to travel up through the os internum; and, thirdly, a uterine dilator of great power, by which any required degree of cervical expansion may be effectually secured and accurately gauged.

The influence of uterine flexions in the prevention of pregnancy and the treatment adopted in cases of sterility dependent thereon are next described. So also is the management of aphoria when it results, as is frequently the case, from chronic endometritis. The methods found most serviceable in infecundity due to vaginal, uterine and ovarian causes are briefly reviewed. More fully dwelt on is the subject of conceptive incapacity from morbid conditions of the Fallopian tubes, as I regard stenosis, as well as occlusion of those ducts by vaginitis and its results, such as hydro- and pyo-salpinx, far more common causes of sterility than usually thought. I also hold that such tubal diseases may often be removed without the resort of the serious operative procedures, as the removal of the uterine appendages by some surgeons considered invariably necessary and by them freely employed in such cases. Therefore I have referred at some length to those less heroic measures, such as aspiration and catheterization of the Fallopian tubes, the feasibility and successful results of which I have clinically demonstrated.

Finally, the question of sterility arising, as it not infre-

quently does, from constitutional disorders, and instances apparently irrespective of any physical cause, and the method of dealing with such cases, is treated of in my paper.

Dr. S. C. Gordon, of Portland, Me., said he did not believe that cases existed where there was not enough canal for the semen to pass up. He believed with Dr. Madden that vaginismus had very much to do therewith. We must remember that we can not raise large crops on barren soil. No one has done more for the relief of these conditions than Graily Hewitt, who is now with us. The uterus is in an abnormal position, and you must return it to its normal position, as is his custom to do so effectually with his pessary. Above and beyond this come the Fallopian tubes and ovaries. The points concerned are, first, vaginismus; second, uterine or pelvic congestion. I am convinced that it is the Fallopian tubes and ovaries, more than the stenosis of the cervical canal.

Dr. Graily Hewitt, of London, described his method of treatment carefully, and expressed his conviction that the good done was through the straightening of the uterus, not the dilatation. I believe it acts by straightening.

Dr. Laphorn Smith, of Montreal, thought that in many cases the difficulty did not lie in the vagina, cervix, uterus, Fallopian tubes or ovaries, but in the testicle.

Dr. Daniel T. Nelson, of Chicago, thought with Dr. Smith, that in many cases the male was at fault. If the mucous membrane of the female is pale, anæmic, contracted, cicatricial, containing little blood, the sperm is not nourished, or if so, only for a few days. Sea-bathing often does good, but only when the husband remains at home.

Otology.

THE TREATMENT AND THE BACTERIOLOGY OF AURAL FURUNCLES.

DR. B. LOEWENBERG, of Paris, France (*Medical Record*, report of International Medical Congress), said :

In 1880 and 1881 I published the results of my researches on the practical nature of aural furuncles, together with the theoretical and practical applications, the substance of which can be given as follows :

1. Boils are caused by an affection from outward, viz., through the ducts of the cutaneous follicles.

2. The successive outbreak of furuncles on the same individual takes place by auto-contagion, that is, through transport of the cocci upon the skin.

3. Infection from one person to others is possible, and originates from the same process as in No. 2.

These fundamental points have led me to a plan of treatment for boils and for furunculosis in general. I shall now expose this method with regard to the furuncles of the external ear, together with the results hitherto obtained.

My course of treatment is about the same as the one formerly proposed by me for otorrhœa, that is, the use of an over-saturated solution of one part of extremely fine powder of boracic acid to five parts of strong, even absolute, alcohol. This compound I use in instillations into the meatus, to be repeated three to four times a day.

As long as the boil is not yet opened, a simple saturated alcoholic solution of boracic acid is sufficient, but when pus is already discharging, I prefer the over-saturated solution, as it deposits a certain amount of boracic powder, dissolving gradually in the pus and thus exercising a continual antibacterial action.

Alcohol, besides its efficaciousness against micro-organisms, is moreover destined to facilitate the penetration of the compound into the ducts of the follicles, the seat of the disease. The fatty lining and contents of these capillary canals oppose, according to physico-chemical laws, a resistance to the entering of watery liquids, while alcohol, according to its affinity to fats, easily penetrates.

Incision of boils certainly sometimes facilitates this course of treatment, but it is often very difficult to practice it just so as to divide the follicle-ducts, which seems to me the desideratum.

Cocaine, though applied upon the epidermis, often procures passing relief.

RESULTS.

An early application of the saturated solution of boracic acid in strong alcohol often arrests the boils; even in the cases where this abortive treatment should fail, the perseverant use of the over-saturated solution always stops the otherwise nearly unavoidable succession of boils, originated by auto-contagion, as I have called it (*loc. cit.*). These results seem to me of great importance, firstly, because aural furuncles are known to be extremely painful; secondly,

because, according to my experience, the longer this local furunculosis lasts, the greater is the tendency of the boils to form in parts situated nearer and nearer the drum, and consequently to prove more and more painful. These results, to the best of my knowledge, have not been obtained before my researches.

Many female patients suffer, often for years, from aural boils arising before or during each menstrual period, a fact, an explanative theory of which will be found in my paper. In such cases my treatment arrests these boils, or, at least, prevents their return. Nay, their formation may even be successfully prevented by a prophylactic use of this treatment begun before the catamenial epoch.

The same result can be obtained with persons who are regularly attacked by this affection in spring or fall.

BACTERIA IN EAR-FURUNCLES.

I have undertaken bacteriological researches in a certain number of cases of still unopened boils of the meatus. In each case I first syringed this canal and then filled it for ten minutes with a lukewarm solution of bichloride of mercury ($\frac{1}{2000}$). A small parcel of the pus was inoculated into agar-agar or nutrient gelatine, and plate cultivations were made of the whole.

I obtained the following results: The micro-organism most frequently found was staphylococcus albus, which was absent in only one case, then came staphylococcus aureus, and sometimes staphylococcus citreus. Only in one case all these three staphylococci were traced together.

These results differ from those obtained by my friend, N. Kirchner, from Würzburg, who only found staphylococcus albus.

A Death During, and a Death Before, the Administration of Ether.

BY D. HAYES AGNEW, M.D.,

Professor of Surgery in the University of Philadelphia.

On the 3d of August, 1887, I was called to visit, by appointment, Mr. R. D., æt. forty-five, at his hotel in Philadelphia, for the purpose of removing two ulcerating hemorrhoids, which had resisted the ordinary means of treatment

for several months, and were causing the patient great discomfort. Dr. White was asked to accompany me and administer the ether. There were no ascertainable reasons why an anæsthetic should not be given, as neither the heart nor the kidneys were diseased, and the patient appeared to be in good health. Only one year previous I had divided and stretched the sphincter ani of Mr. D. for fissure, administering the ether myself, and after anæsthesia, entrusting the agent to a friend of the patient, who was present, for the brief time required for the operation. About six ounces were taken at this time.

At the time of the last operation nothing occurred during the early stage of the inhalation, other than what is witnessed every day when ether is exhibited. In the course of fifteen minutes the patient, though somewhat rigid, was placed across the bed. One of the tumors was dragged down, transfixed, and ligated with a double ligature. When about to seize the second, the breathing, which had been strong and free, suddenly ceased. The operation was immediately suspended, and the usual methods for resuscitation instituted. These consisted in examining the throat for the probable presence of some obstructing cause, dragging the tongue forward, the use of artificial respiration, flaggelating the surface with the end of a wet towel, ammonia to the nose, partial inversion of the patient, and, finally, the passage of the electro-galvanic current through the phrenic nerves. Notwithstanding, these measures were persisted in for at least three-quarters of an hour, during twenty-five minutes of which time the pulsations of the heart could be recognized, not a single effort of natural respiration occurred. The man was dead.

The post-mortem, made by Dr. Formad, revealed complete collapse of the lungs, marked traces of an old meningitis, attributed to a former sunstroke, and what satisfactorily explained the sudden termination of life, the rupture of a calcified vessel in the floor of the fourth ventricle, the recognized physiological center of respiration; all the vessels comprising the circle of Willis were in a similar state of atheromatous degeneration. It was evident, therefore, that the increased vascular tension of these cerebral vessels, caused by the ether, determined the lesion, a result which might have followed any unusual excitement, mental or physical. The heart and kidneys were healthy.

The question naturally occurs: Could this sad disaster

have been prevented? Certainly, in view of all the circumstances, it could not. 1st. The ether was that known as Squibb's. The can contained eight ounces; two ounces remained in the vessel; two ounces, it is fair to suppose, had been retained in the folds of the towel, leaving four ounces, or, at most, less than five ounces which had been inhaled. 2d. There was a sufficient admixture of atmospheric air with the respired vapor, as the anæsthetic was administered from an ordinary towel folded into a cone and with an opening at the apex. 3d. The position of the administrator, Dr. White, that of reclining alongside of the patient, with the face of the latter in full view, would have enabled him to detect at once any signs of approaching danger, which, from his long experience in giving anæsthetics, would have been quickly recognized; and, last, the impossibility of being able to ascertain during life, the state of the blood-vessels of the brain disclosed by the autopsy, and rendered very improbable in a man of forty-five years of age.

After forty years of surgical work, often, too, of the gravest character, and sometimes requiring prolonged anæsthesia, without an accident in a single instance, I had come to believe that the exhibition of ether, unless recklessly administered, was entirely free from danger. Several deaths, I am aware, have been reported, from time to time, in its use, even in the hands of the most skillful operators; but I never could divest my mind of the idea that in these cases there was some undetected element involved more influential in the issue than ether, as in the present instance.

The following case, which came directly under my own observation only a few months before the death of Mr. D., is in point.

I was called to one of our suburban towns to see a case of strangulated hernia. The patient was a female about seventy years of age. The intestine had been incarcerated for three days. Her pulse was quite good, and there were no signs of collapse. I noticed the pupils were much contracted, no doubt from the opium which had been administered. I directed her medical attendant to place the patient properly in bed, and prepare a cone for giving the anæsthetic, while I made my preparation for the operation. This was done. In a few minutes I was ready to proceed, and then told the doctor to give the ether. While reaching for the bottle, and before removing the cork, the patient gave

a sudden convulsive movement, at the same time ejecting a large amount of stercoraceous matter from the stomach, and expired in a moment. Had the etherization been commenced, or the operation begun, before the death of the woman, the fatal result would have been charged to either the anæsthetic or to the knife.—*Phil. Med. News.*

Another Case of Albuminuric Retinitis of Pregnancy.

BY A. D. WILLIAMS, M.D., OF ST. LOUIS.

Some months ago I gave in the *Journal* the history of two cases of albuminuric retinitis of pregnancy, and urged as the only remedial procedure in this condition prompt and early induction of premature delivery. I have now to present another sad case, emphasizing my former words of warning.

A lady of middle age consulted me during the past week on account of a practical loss of her vision. She can barely count fingers with one eye. She gave the following history:

Two years ago, when three months gone in pregnancy, she took a most violent headache, which was not apparently benefited in the least by any treatment her physician could suggest. This intense headache lasted for several days, and suddenly passed away. Very soon after the cessation of pain her vision became dim, rapidly growing worse, until at the end of three or four days she was totally blind. Three months later she had a miscarriage, the fœtus (one of six months) dying almost immediately. Soon after the miscarriage the vision began to clear up, the amelioration progressing until she could count fingers held in certain positions before one eye. Here the process of repair stopped, and has remained stationary ever since.

After receiving this history I made an examination and found both vitreous chambers full of old clots of blood; but through these I could discern the peculiar stellated patches in the retina characteristic of albuminuric retinitis. So much for the ophthalmoscope; but for diagnostic purposes I had not to rely upon it alone, but upon the characteristic history, viz.:

1. Pregnancy.
2. Headache, intense, intractable, suddenly ceasing.
3. Dimness of vision following immediately, and grow-

ing rapidly worse, even to total blindness. (This is peculiarly characteristic, and is a singular phenomenon. The vision is not involved in these cases until *after* the headache ceases. Such, at least, has been the case in every instance coming under my observation, or found in the range of my reading.

4. To make the pathological picture complete, an examination should have shown the urine to have been loaded with albumen. This feature is wanting in the history given me; but as no examination was made, I can only assume that it was so.

The hemorrhage into the vitreous chambers is unusual, and, in this exceptional case, I presume it was due to some accidental condition. That it was not the primary cause of blindness is proven by the fact that the latter was not instant, which it would have been had hemorrhage been the cause.

That gestation or the pregnancy was the exciting cause is proven by the amelioration which ensued upon delivery. Had, therefore, the true condition of the patient been recognized at the time when her vision began to fail; or, better still, when the headache was found to be intractable to treatment, which could easily have been accomplished had the attendant physician caused a test of the urine to be made; and had a prompt miscarriage been induced, in all probability her vision would have been saved. Now she is hopelessly blind. The moral is self-evident; but I will repeat it for emphasis and for the benefit of those practitioners who are too apt to neglect that greatest of aids to scientific diagnosis, *a careful and competent examination of the urine.*

When the pregnant woman in the earlier periods of gestation is seized with a headache that is violent, intense, intractable, and which ceases, only to be followed by dimness of vision, suspect albuminuric retinitis. Examine the urine, and if albumen is found in any quantity, proceed at once to the only measure which gives any promise of salvation of vision or of life itself, and produce premature delivery.—*St. Louis Med. and Surg. Journ.*

Antipyrine.

THE application of antipyrine seems to extend day by day. Professor Germain Séé is one of its decided partisans

in its use against pain, and goes so far as to count on it in the place of morphine. Its easy solubility allows of its use in subcutaneous injections, and Dr. Seé adopts this form for rheumatic pains in half-gram doses. It must be stated, however, that at the same time three grams are given by the mouth, with the result of nearly always calming the pain, both in chronic rheumatism and in acute gout.

M. Seé also states that he cured three cases of *tic-douleureux*, and also cases of painful *zona*, *lumbago*, *megrim*, *hepatic colic*, *nephritic colic*, *angina pectoris*, *asthma*, and a long list of other troubles, including heart-pains. Professor Seé does not hesitate to conclude that it can entirely replace morphine, and certainly it has not the inconvenience of that drug; but will it always have the fidelity of action that it has against pain? Time alone can tell. At the present moment all the great hospital services are trying antipyrine in all sorts of troubles, so that in a few months its remarkable sedative influence will be investigated enough to enable us to report more fully upon it.

M. Chouppe reports to the *Société de Biologie* that he had occasion to employ antipyrine in rectal injections to calm uterine colic. In one case, a woman was suffering with intense after-birth pains, and an injection containing one gram of the drug removed the pain. It returned after several hours, but a second injection was given with the result of a definite cure. A second observation was that upon a woman who, for several years, had violent colic at every menstrual period, which lasted several hours at a time. Relief could not be obtained without great difficulty by the use of doses of laudanum or chloral large enough to produce profound sleep. At her last menstrual period, during a most violent attack of pain, one gram of antipyrine was given by a rectal injection, with the result of complete and definite calm being established within a quarter of an hour.

The same author also spoke of the "Reciprocal Action of Antipyrine and Strychnine." He made a number of experiments to see if antipyrine, in large doses, would modify the form and intensity of strychnine convulsions, according to a suggestion of Professor Brown-Séquard. He found that the convulsions produced in animals by antipyrine did not resemble those of strychnine in three important points: (1) They were not brought on by peripheric extication; (2) their form was not so tetanic; they

consisted of a series of rapid clonic convulsions without any real tetanization of the muscles; (3) they did not act so much on the muscles of respiration, and this function was not at all suspended with danger of asphyxia, as in strychnine convulsions. Adding the action of strychnine to antipyrine, M. Chouppe injected into the veins of an animal which was already in a state of convulsion from antipyrine, a dose of strychnine that should have killed it, but the antipyrine convulsions were simply replaced by strychnine convulsions, and the animal did not die. Then a stronger dose of antipyrine was injected into its veins, which caused the strychnine form to give way to the antipyrine convulsions. The result of various experiments seems to establish that the action of antipyrine to some extent prevents the convulsions of strychnine, by reducing the power of the spinal marrow.—*Philadelphia Medical Times*.

Treatment of Typhoid Fever in Several Hospitals.

NEW YORK HOSPITAL.

Reported by Dr. George A. Richards, House Physician.

DURING the early part of this summer the routine treatment of typhoid fever in Dr. Peabody's wards, if the patient entered during the first ten days of the disease, was a calomel purge immediately followed by naphthaline in doses of ten grains every three hours. The first seven cases died (two having entered the hospital moribund), one of septic infection, one of acute mania, and the three others simply from the intensity of the poisoning, the lesion being very extensive.

Since August 14th we have had but one death in twenty-one cases—two of these are still sick, but doing well—of this number, thirteen have had absolutely no treatment *directed to the intestines*, eight have had naphthaline, and among these the one death occurred.

When the temperature rises high enough to make the daily average about 103° , antifebrin is given, either in large doses at long intervals, or in continuous doses of two grains every two hours during the day, and three grains every three hours during the night. Some patients have had two grains every hour during the day. In no case was any bad result noticed; on the contrary, the patients were

quieter, slept better, and temperature, pulse and general condition were much improved.

Whisky is given when pulse, tongue and condition indicate the need of stimulation, the amount varying from three to eight ounces during the twenty-four hours. Fluid extract of digitalis is added occasionally in small doses.

When there is insomnia, it is almost always relieved by morphine, generally given hypodermatically, as so many of the patients have a greater or less tendency to vomiting. In a few cases the bromides, or urethan have been tried, but not with such good results as morphine. In cases of delirium with great restlessness, hyoscin hydrobromate, given hypodermatically in doses of one-hundredth of a grain, has been tried with very good effect. It has been followed by several hours of quiet sleep.

Diet is of milk, patients taking generally from four to five pints daily. If the stomach is at all irritable, milk with lime-water, or peptonized milk is given. Some patients take beef tea well, and have from one to two pints of this daily in addition to the milk.

In a few cases nourishment by the rectum has been tried for short times, with the effect of relieving an irritable stomach. Laxative enemata are given every other day if patients have no movements from the bowels; and in almost all of our cases this has been necessary, as patients have been generally constipated, diarrhœa being the exception rather than the rule, during the summer just passed.

Counting three cases not already entered in this report, as they were not here during Dr. Peabody's service, there have been thirty-one cases treated here since last April, with eight deaths, a mortality per cent. of almost twenty-six. This very high rate is to be explained partly by the fact that several patients entered late in the disease, and in very bad condition.

ST. LUKE'S HOSPITAL.

In Dr. Francis Kinnicutt's wards the treatment is essentially general and symptomatic. During the past several years, when it has been possible to establish the date of the beginning of the disease, occasionally one or more moderately large doses of calomel have been given in the first days of the fever, but never with the result of *aborting* the disease. So many factors are involved, that is difficult to give a trustworthy opinion in regard to the alleged power of

calomel given at the inception of the disease, *at least* to influence favorably its subsequent *course*. Naphthaline given in frequently repeated doses, to the amount of sixty grains daily, has also failed in any abortive effect.

Rest, quiet, fresh air, and a very carefully regulated diet of mixed liquid food constitute the general treatment. Increased fever and intestinal irritation frequently have been observed to follow the ingestion of large quantities of raw milk, and in such cases a reduced amount of peptonized milk has been given.

The symptomatic treatment may be summarized as follows: Urethra is considered by far the safest and most efficient hypnotic. Its not sufficiently well recognized antipyretic properties increase its value. It is given in doses of thirty to forty grains, repeated in an hour or two, if necessary, to relieve insomnia. Believing that excessive diarrhoea has its source often in the presence of undigested food in and catarrhal inflammation of the bowel in addition to the specific lesion, the stools are carefully examined in such cases. The presence of curds demands a more careful regulation of the diet. A combination of naphthaline and bismuth has been found efficient in controlling the catarrhal inflammation and in correcting fetor.

Recognizing the fact that paralysis of the bowel and thereby obstinate constipation may proceed from a *deep* ulceration, laxatives are not given after the first week or ten days. Small enemata every other day are used to relieve constipation. Since the discovery of the new group of antipyretics, they have been employed, almost to exclusion of baths in any form, to control what is believed to constitute harmful continuous pyrexia.

The general rule adopted is to give antipyretics only when the temperature reaches 103° . Kairin, hydrochinon, thallin, antipyrin and antifebrin have been successively used and their effects very carefully observed. As the result, antifebrin is at present almost exclusively employed. Very exceptionally have any ill effects followed its use.

For combating heart failure, alcohol is chiefly relied upon. Where heart weakness proceeds from degeneration of muscle fibre, a minimum effect may be expected from any method of treatment; if failure is chiefly due to impaired nerve force or influence, which is more often the case, the use of alcohol gives the happiest results. Alcohol is rarely given in the early stages of the disease, very commonly in the

third and fourth week. Many cases are treated throughout, without its employment. Its use is restricted to combat *special* symptoms. Sir William Jenner's rule is largely the guide in its administration. "When in doubt in an individual case of typhoid fever, abstain from giving it; where there is a question of the larger or smaller dose, prescribe the latter."

Dr. Beverley Robinson's general treatment of typhoid fever is expectant; he does not believe that there is any known specific for this fever, and is very doubtful as to the power of any drug, in use at the present time, to abort this disease. His treatment naturally depends upon the stage of the malady at the time it comes under his care, and whether it has a tolerably mild course without complications, or whether the disease from the beginning is marked by more than ordinary severity, and is accompanied by manifest departures from what is usual, and the complications indicate special severity of the attack, or march of the affection.

The cases of typhoid fever which he had treated during several years past, have been, as a rule, of moderate severity. Diarrhœa has not been very frequent, temperature rarely going beyond 104° at any time, and then only during brief periods, heart complications have been occasional, pneumonia rare, and nervous symptoms showing either ataxia, or great adynamia, in relatively few instances; he recalls not more than three or four cases of intestinal hemorrhage.

In the incipient stage of typhoid fever a mild saline cathartic preceded by one or two grains of calomel, or double that quantity of blue mass, is prescribed. Later, and so long as the development of typhoid fever appears doubtful, small doses of aconite, ammonia, and spirit of Mindererus, or neutral mixture, are the means he employed to subdue febrile excitement. If fever still continues, with marked elevation of temperature in the afternoon, after a few days, and other symptoms point more surely toward the typhoid state, these agents are abandoned for tonic doses of quinine, milk diet, which is insisted upon, and occasional tepid sponging of the trunk and limbs with lukewarm water and vinegar. Complications are treated as they arise, bronchitis, or pneumonia with tincture of iodine, turpentine stupes, or Corson's paint, to the chest walls; chloride of ammonium, moderate doses of digitalis, and moderate stimulation with

whisky internally. If the heart becomes irregular or notably weak and frequent, or a blowing murmur shows itself at the apex, he now orders tincture of strophanthus in five-drop doses every six hours, besides using mustard poultices or dry cups to the chest, and beginning, continuing or increasing the alcoholic stimulant. Nervous derangements are influenced favorably by ether in the form of perles, by musk, or by a mixture of lavender, chloroform, ammonia and camphor. Hemorrhage is controlled with turpentine and opium. High temperature is controlled by antifebrin in five grain doses, repeated two or more times, in the twenty-four hours, or whenever the body temperature goes beyond 103° Fahr. in the axilla.

The diet is usually limited to milk during the duration of the fever. This is given to the patient every two hours, as much as he will drink; nausea, or disgust for food, being to some extent relieved by the addition to the milk of lime-water, Vichy or Vals water, or by the alcoholic stimulant administered at the time. If nausea persists and the patient becomes very weak and prostrate, dry champagne is given frequently in small doses. Occasionally, *black coffee* has worked wonders in bringing back to life patients who appeared almost moribund. Solid food, as a rule, is not allowed until all febrile reaction has been absent at least one or two weeks. When begun, he is now using with favorable results what is known as albuminoid food, which seems to be tolerated by the stomach and bowels more readily than beef peptonoids, or other preparations of a somewhat similar character. At a later period, if the albuminoid food and the beef peptonoids have been well supported, and, especially, if no recurrence of the fever take place, farinaceous food is permitted and a small quantity of light meats once a day.

In very few patients has he found the necessity at any time to treat their febrile condition by means of *systematic cold bathing*, and he regards this treatment as ill-adapted to the large majority of typhoid fever cases met with in New York City, either in hospital, or private practice. Whenever hypostasis of the lungs involves these organs in a considerable degree, he believes frequent inhalations of oxygen gas to be a measure of great practical utility in giving to patients some additional chances of preserving life otherwise imminently imperiled.—*Phila. Medical News.*

St. Louis Medical Society.

DR. W. B. DORSETT presented the specimens of a case of
CANCER OF THE UTERUS.

M. N., æt. 63, German widow, mother of five children. Admitted to Female Hospital, August 8, 1887, suffering with "general debility," or, as she expressed it, "weakness." About a week after admission she called my attention to a swelling in the right groin. Upon examination it was found to be about the size of a walnut, firmly fixed, indurated at its margins, with a small spot in the center which slightly fluctuated. Pressure, although firmly produced, caused no pain. The presence of this tumor (an indurated gland) led me to make a careful examination. All of the external organs of generation were found to be perfectly normal. Upon passing my index finger into the vagina, I found it to be only one and a half inches in depth. The anterior and right lateral wall hard and unyielding, cervix uteri hard, uterus firmly fixed. Bimanual palpation did not reveal the position of uterus, so firmly was it bound down in the pelvis. A round tumor similar in size and shape to the gland in the right groin could be felt immediately above the pubes. It was so firmly fixed that it could not be moved in any direction. A very offensive discharge tinged with blood was issuing from the vagina, a discharge characteristic of cancer of the uterus. The examination caused the patient no pain, and upon interrogating her closely, she said she never suffered any pain in that region, and in fact did not know that anything was the matter, except that she was very weak. There was this offensive discharge, not very copious, no pain and no hæmorrhage at any time. Her appetite was remarkably good from the time of her admission to the time of her death, fifty-two days. The treatment consisted in nourishing diet, tonics, and, as she was habitually constipated, laxatives. As she always slept well, and never complained of pain, no sedatives or hypnotics of any kind were given. She grew weaker daily, and died September 29th, of exhaustion.

Post-mortem examination made by Dr. F. D. Mooney about twelve hours after death. Body much emaciated, somewhat pale in color, but not distinctly of characteristic cancerous hue. Uterus bound down in pelvis firmly, and was only removed from pelvic cavity with difficulty; and

when taken out, the uterus, bladder, vagina, and right ureter and kidney present this appearance: On the posterior wall of bladder is seen a hard tumor, about the size of a walnut, breaking down in center, and is the tumor I felt in making the digital examination. Anterior and right lateral vaginal wall hard and thickened, cervix uteri hard and nodulated. Right broad ligament much thickened, nodulated and slightly friable. Right ovary in the same condition, adhesions very firm between the cancerous (?) mass and right pelvic wall. The fundus and anterior aspect of uterus free from pathological changes, posterior aspect of body infiltrated and firmly adherent to cancerous mass. The right ureter was found passing down behind the tumor and dilated above the tumor to four or five times its natural size. Pelvis of kidney in same condition as to dilatation. The most interesting feature in this case was the total absence of pain. Lawson Tait, in his work on "Diseases of Women," page 59, states that: "This disease is at once the most painful of all the manifold afflictions from which humanity suffers, and the most terrible because nothing can be done for cure, and even our palliative measures are insufficient." And Thomas, in his work in enumerating the varied "symptoms of cancer," heads the list with *pain*; next comes metrorrhagia: in short, all writers I have consulted on this subject agree that pain and hæmorrhage are the chief characteristic symptoms of this disease.

In this case they were entirely absent; still, the characteristic odor of the discharge was present, and from the odor of the discharge and from the pathological condition (not microscopical) found in the post-mortem, I am of the opinion the condition is cancerous.

Dr. Hulbert: It was certainly very remarkable that she did not suffer any pain. Examination of the tumor shows that the uterus is hardly affected by it, and as to the adhesions existing, I should judge that they had been due to pelvic peritonitis. It may be possible that the absence of pain is because it was entirely developed in the broad ligament. The cancer coming out so gradually in the loose connective tissues, it made its way without involving any of the nerves, and so the pain would not occur. I have been astonished at the amount of degeneration that has occurred from cancer, and the slight amount of pain the patients suffered. In two cases I saw the uterus was to a like extent involved.

Dr. Lutz: In cancer of the bladder ordinarily there is such excruciating pain that it is unlike any other troubles. One case I remember, a woman sixty-five years old, suffered in that way; the symptoms were a constant desire to micturate. I examined her under an anæsthetic, dilating her urethra and introducing my finger, and found the entire posterior wall of the bladder covered by a growth, which bled very freely on being touched. The neighborhood of the entrance of the uterus was also involved; the rectum and uterus not involved. The absence of pain in this case is striking. In many forms of malignant growth pain is not a prominent symptom. I imagine that epitheliomata are least painful of new growths. I have a specimen of a man whose entire face and eye, and a portion of the base of the skull and brain were substituted by epitheliomatous growth, but in a year that I treated him he never took a grain of morphine.

Dr. A. H. Ohmann-Dumesnil presented a case of

LUPUS ERYTHEMATOSUS OF THE HAND AND ARM.

It is the forty-fifth case on record. In Germany, lupus erythematosus of the face is often seen, but the involvement of the hand and arm is comparatively rare, and in this country this makes about seventeen cases. This boy is in his sixth year. He came to me a little over a year ago; I recommended the application of lactic acid, and, subsequently, pyrogallie acid and soft soap, and it acted well for six months. At first he had all the fingers involved, and the back of the arm. At present it has a healthy appearance, which is due to the application of camphophenique and olive oil. Commencing in the sweat glands, it extends to the upper layers of the skin. It has a general erythematous character, but has nothing to do with lupus. It is sometimes accompanied by pain; at present there is no pain. When it first came it was covered with yellowish crusts, which consisted of coagulated blood. When it heals it leaves a thin, flexible scar, and there are little points, the remains of the glands. Recent investigations have shown that it is due to a micrococcus. It does not attack the papillary layer at all; that accounts for the thin skin. Out of forty-five cases the forearm was involved in only one case. The average duration is six and one-half years. The section which I have under the microscope is made from an old preparation, which is a superficial part.

Dr. F. R. Fry exhibited a patient showing

THE RESULT OF AN EXCISION OF THE WRIST-JOINT.

I first saw the patient in January; his wrist was then swollen and painful. The physician who preceded me used vesicants, so that the appearance of the skin was deceiving. I soon felt that there was suppuration and lanced it and found a free opening into the joint, made a counter-opening, satisfied myself that there was dead bone. Later, I made a still freer incision and scraped out the dead bone, put it in plaster. The process continued, and I had Dr. Hodgen see the patient with me. He agreed with me that excision was the thing to do and did the operation.

Dr. Hodgen: The operation was the ordinary one, through a single opening on the dorsal aspect, radial side, with this exception, that it was only partial. It is advised in these cases to make a complete excision; in this case I removed all of the first row and part of the trapezium, and also about one and a half inches of the ulna and radius. At the close of operation the parts could not be brought together by about one inch, but subsequently, the inflammatory products being absorbed, this could be done, and I think that motion of the wrist is pretty good. I hoped to have present an elbow that I excised about a year ago. The boy suffered from tubercular osteitis; I removed one and a half inches of the ulna, one inch of the radius and one inch of the humerus. There was nothing but a shell of bone. The boy now has some flexion and extension, and it is a useful arm. In regard to the wrist, I removed all of the tissues that I thought there was any danger from.

Dr. Fry: I believe the trouble originated from traumatism, and yet it is difficult to explain the traumatism. While in bed, the patient's room-mate rolled on his arm, and he awoke with the pain. The next day he worked hard with the hammer; and by night his wrist was practically helpless. Its following so nearly upon this traumatism, and there having been nothing the matter with it before, leads me to believe that the traumatism was the cause of the trouble. Prior to the operation the patient was in a very run down condition, but within a few weeks he began to gain, and is now better than for several years. — *The Journal*.

The Antiseptic Treatment of Diphtheria.

LE GENDRE, of Paris, in the *Archives de Laryngologie*, No. 1, 1887, gives the following formulæ for antiseptic mixtures to be used in diphtheria:

Bichloride of mercury may be given in

Aquæ destillat.	℥ 3¾
Tinct. aconit.,	m 15 to 30.
Sodii chlorid.,	
Pepsinæ,	āā gr. ¾.
Hydrarg. bichlorid.,	gr. ⅙ to 2¼.—M.

Sig.—One teaspoonful every hour.

Cyanide of mercury has been employed in the following solution:

Aquæ destillat.,	℥ 15.
Tinct. aconit.,	m 15.
Hydrarg. cyanid.,	gr. ⅓.—M.

of which a teaspoonful may be given hourly.

Iodoform may be locally applied in the following:

Ether,	℥ 6¼.
Balsam tolu.,	m 75.
Iodoform,	gr. 38.

In powder it may be mixed with sugar, 1 to 3.

Bromine and the bromides may be given in

Bromin. (pur.)	
Potass. bromid.	āā gr. 8 to gr. 15.
Aquæ destillat.,	℥ 50.

with which the pharynx may be penciled every two or three hours; it may also be used by inhalation.

Sulphur and sulphides may be prepared for use as follows.

Ol. amygdal. dulc.,	℥ 5⅝.
Sulphur sublimat.,	gr. 38.

This may be used as a gargle.

The following, in pill form, has given good results:

Calcii sulphid.,	gr. ¾.
Digitalin.	
Quiniæ arsen.,	āā gr. ⅙.

For infants the dose should be but one-half.

Salicylic acid may be used in

Aquæ destillat., . . .	℥ 25.
Glycerin., . . .	℥ 2½.
Aquæ lauro-cerasi, . . m	15.
Acid, salicylic, . . .	gr. 4½.

which may be applied upon cotton to the fauces.

Benzoate of sodium has been frequently tested, and is used by Litzerich in the following:

Aquæ destillat. . . .	
Aquæ menth. piper., . . .	āā ℥ 10.
Syrup aurant. cortic., . .	℥ 2½.
Sodii benzoat., . . .	gr. 75.

From half a teaspoonful to a dessertspoonful hourly.

Lactic acid is given by Bricheteau and d'Adrian, by inhalations of spray, in solution 1 to 100, as a gargle:

Aquæ,	℥ 25.
Syrup aurant., . . .	℥ 7½.
Acid, lactic,	gr. 75.

may be employed.

Diphtheritic ulcers may be touched with

Glycerin,	℥ 15.
Acid, lactic,	gr. 45.

Oxalic acid, given internally, may be used after the prescription of Cornillon:

Infusion of green tea, . .	℥ 32½.
Syrup aurant, cortic., . .	℥ 7½.
Acid, oxalic,	gr. 23.

Dose, a teaspoonful to a dessertspoonful every three hours. With this treatment is generally combined the use of a tea made by infusing laurel leaves. The local use of oxalic acid is best in solution, 1 to 20, or in glycerine, 1 to 100.

The writer personally prefers the following treatment:

Three or four times daily touching the diseased surfaces with corrosive sublimate, 1 to 100 in alcohol; he dips a small sponge or pledget of cotton in this, carefully presses out superabundant fluid, and touches the false membrane. Every four hours he orders thorough spraying or douching of the nares and fauces with *warm* boric acid solution, 4 to 100. Internally, benzoate of sodium, gr. 45 to ℥ 3 per diem, in a mixture given in teaspoonful doses hourly. Bordeaux, Spanish and Champagne wines and coffee are to be freely used.

Hemorrhages from the Unimpregnated Uterus.

DR. HIRTON has made a study of this subject, which has led him to publish the following (*The Glasgow Medical Journal*): He believes the uterus and Fallopian tubes, including their fimbriated extremities, are erectile under excitement—the uterus under sexual excitement as well as menstrual, and the Fallopian tubes under ovarian excitement or during ovulation. In the majority of the lower mammalia there is a bloody manifestation at the menstrual period, but in many the uterus is relieved at times by the secretion of clear Nabothian mucus. Civilization has, indirectly, something to do with this. Some of the lower domesticated animals have bloody menstruation, as, for instance, rabbits kept in a warren for several generations and fed on rich food; also the sow and elephant for similar reasons. Again, some tribes of monkeys in India and elsewhere menstruate pretty frequently during the warmer months. In the colder countries of Europe, where the inhabitants lead quiet, unexciting lives, the females often do not menstruate until about eighteen, and sometimes not until many months after marriage, or even until after the birth of the first child. In South Africa, at a latitude where the winters involve comparatively cold weather, there exists a race inhabiting pits or excavations beneath the surface of the ground, and whose habits and intercourse generally differ little from those of the lower animals. It is only when indiscriminate intercourse has taken place for some time that blood appears, and then merely in comparatively small quantities. The menstrual flow can not be said to be the direct effect of ovulation, inasmuch as it may be induced by other causes—*e. g.*, strong emotions, more especially those of joy; sexual excitement in the newly married; a day or two after operations in the abdomen, etc.

The flow is liable to be arrested by nearly as many and varied causes. The more you study the uterus as regards its hemorrhages, the more you are convinced that it behaves exactly like an erectile organ. Excessive joy may arrest the menstrual flow for some hours, to be succeeded in a few hours by a corresponding increase. As long as the influences that act upon the uterus are emotional—that is, act through the nervous system—the disturbance of its circulation is only attended by temporary evil results, but if along with these, or apart from them, you introduce other elements of

disturbance of the circulation, you then have pathological hemorrhage. These other elements are divided into two classes—(1) those of disturbance to the egress of blood from the uterus, and (2) those conducive to obstruction to the venous return. It is this latter class that the author chiefly alludes to. Taking into consideration the anatomy and structure of the uterus and the ovaries, especially regarding their vascular supply, it is evident that their vascularity is subject to a wide range of tension. The veins of the venous plexus around the cervix, and especially below the ovaries, are unsupported throughout their course. They are also practically without valves, and their walls are very thin. In the upright position there is considerable resistance to the return of blood through these veins, whereas in animals the horizontal position favors the return. If, in addition to this, there is disease of the liver, heart, or lungs, the tension on the venous plexuses is markedly increased, and it is easy to understand that rupture of one or other of them should occasionally take place. Indeed, it is marvelous that it does not happen more frequently than it does. The main contention among various authorities regarding these hemorrhages is, whether the blood is exo-peritoneal or endo-peritoneal in its first instance. Of course the blood is endo-peritoneal in cases of rupture of the uterus or Fallopian tubes, as in tubal pregnancy. In cases of uterine hæmatocele, however, formed during labor, the author has determined that the peritoneum is capable of considerable tension and elasticity, and that the blood was exo-peritoneal.

Laryngeal Phthisis and Its Connection with the Tubercle Bacillus.

KORKUNOFF reports his results from his study of this subject as follows: His material consisted of fourteen larynxes taken from cases of pulmonary, peritoneal, and general miliary tuberculosis. In twelve of these, laryngeal phthisis was also present, while the remaining two did not present any structural changes, either to the naked eye or microscopically. The specimens were hardened in alcohol, and then placed in paraffin, the slides being treated after the Koch-Ehrlich plan. Dr. Korkünoff's results may be summed up as follows: 1. In the twelve phthisical specimens tubercle bacilli were found in the tissues. They were

absent in the tissues of the remaining two, in which there was no laryngeal disease, though the secretion collected in the ventricles contained numerous Koch's rods. 2. The number of the latter varied, but bore no relation whatever to the extent and intensity of the morbid process—that is to say, they were often very scanty in number in an extensive tuberculous mass, and *vice versâ*. Further, in some cases he was unable to detect any bacilli within or around an ulcerated region, while he found them in some recent tubercular formations in the same larynx. This shows the importance of examining in each case as many sections as possible taken from different situations. 3. So far as histological changes are concerned, the tuberculous ulcer of the larynx originates in the following way: Mostly in the subepithelial layer, but not infrequently in some deeper one, one or more tubercles, each of which is often inclosed in a connective tissue capsule, make their appearance, the epithelial covering and intermediate layer remaining yet intact. The tubercles contain Koch's bacilli, which are also seen in the surrounding infiltrated tissue, but never in the epithelium or the still healthy intermediate layer. The latter, with the gradual increase of tubercular infiltration, becomes ever narrower, and ultimately disappears, so that the new growth comes into close contact with the epithelium. At this stage, copious infiltration of the epithelial covering with leucocytes invariably takes place, and spaces become apparent between its cells, which are filled with white blood-corpuscles and tubercle rods. These spaces are nothing else than lymph spaces, which are also present in normal epithelium, but which may become dilated under morbid conditions. The nutrition of the epithelial covering now fails, its superficial strata become fissured, the infiltration with leucocytes increases, the lymph spaces grow larger, and finally the diseased portion separates, leaving a denuded or ulcerated surface. The ulcer continues to spread in the same way, that is, by infiltration with leucocytes, formation of spaces, sloughing, etc. In the parts covered with cylindrical epithelium, which is comparatively softer, the process goes on more rapidly than in those covered with the flat variety; consequently, the tuberculous ulcers are deep in the former situation, and superficial in the latter, as Biefel had already pointed out. 4. The primary cause of the process is the tubercle bacillus. Having appeared in the subepithelial layer, the microbes, by their

presence and proliferation, give rise to all the changes described above. 5. The microbes enter into the subepithelial layer, not from the patient's expectoration, but from his blood-vessels or lymphatics, which carry them thither from primary tuberculous foci. No bacilli are met with in the epithelium of the intact larynx in a phthisical patient, though that epithelium is in constant contact with the expectoration containing tubercle bacilli. Again, no bacilli are found in a still intact epithelial covering, when tubercles, together with bacilli, are present in the subepithelial stratum. Microbes appear in the epithelium only in places where a tubercle with bacilli lies in immediate contact with the epithelium, and when they do so, they lie in greatest numbers in the deeper layers of the epithelium, and become more and more scanty as the surface is approached. Lastly, Koch's microbes have no power of locomotion.—*British Medical Journal*.

Significance of Pelvic Pain.

AT the November meeting of the N. Y. Neurological Society, Dr. H. C. Coe read a paper upon the above subject. He said that pain was not a reliable indication of disease. Often an epithelioma of the cervix would cause less distress than a dislocation. The description of pain by the patient, and the localization of its cause by the physician, presented separate topics for thought. As described by the patient, the pains of the pelvic region were, in general terms, an aching pain in the lower part of the sacrum, a shooting pain in the inguinal regions, and the gnawing pain of carcinoma. All of these pains could be referred to some lesion of the peritoneal or connective tissue, or both—to some plastic exudation not necessarily of great amount. The distress caused by a retroflexed uterus was much greater where there were adhesions than where there were not. It was fair to assume that this constant, aching pain was due to the implication of nerves in the exudate. Laceration of the cervix, excepting that extending into the vaginal front, did not, in itself, cause pain. The cervix was a very insensitive organ, and laceration was but a link in the chain of circumstances which resulted in pain. Malignant disease did not necessarily give rise to pain. Hart and Barbour say that there is no pain so long as the cervix only is affected. Hewitt says

that the pain of cancer is due to localized attacks of peritonitis. The pain was earliest and most severe when the growth was in the body, thus differing from sarcoma of the body in which there was little pain. Possibly in this variety of cancer the intra-muscular nerves were involved in the growth. The shooting, darting, sickening pains associated with disease of the tubes was due to nothing but peritonitis. Hegar refers to cicatricial nodules in the broad ligaments, and even in the case of ovarian neuralgia it seemed probable that the pain was due to pressure upon the nerve before it entered the organ, rather than to changes within it. Otherwise this pain would not be relieved by the relief of perimetrial adhesion, as frequently occurred.

The inference was to give a guarded prognosis in regard to the relief of pelvic pain. If the pain, associated with a fissured cervix, was due to cicatricial nodules in the broad ligament, we might cure the laceration and the endometritis, and yet the pain would continue. To remove the ovaries for the relief of pain was even more hazardous.

The speaker thought that gynecologists exaggerated the frequency of reflex pain. With Dr. Dana, he considered anemia the most frequent cause of vertex headache. Pelvic reflexes were found in the upper lumbar and intercostal nerves. He had not found sciatica of ovarian origin according to Dr. Mundé's suggestion. It might occur as the result of some exudates, but must be rare as a reflex pain. Dr. Mundé, himself, somewhat oddly remarks that this pain is relieved by a blister over the sciatic notch. Dr. Polk's plan of separating adhesions for the relief of pain presented scarcely less risk than the usual operations referred to. Treatment by electricity, according to the methods of Apostoli, gave the most satisfactory results. Reflex or transferred pains might also be due to inflammatory foci and might be treated in the same way.

Book Notices

TEXT-BOOK OF THERAPEUTICS AND MATERIA. Intended for the Use of Students and Practitioners. By Robert T. Edes, A.B., M.D., Professor of Materia Medica and Jackson Professor of Clinical Medicine in Harvard University; Fellow of the Massachusetts Medical

Society, and of the American Academy of Arts and Sciences, etc. 8vo. Pp. 552. Philadelphia: Lea Brothers & Co. Cincinnati: R. Clarke & Co. Leather. Price, \$4.50.

When a new medical text-book has been launched upon the profession, to make use of an expression we have met, it is expected that the author will state in the preface his object in adding another volume to the already too numerous works designed for students. The author of the work before us says that it has been his aim to present in this book a concise, practical, working view of the present state of Pharmacology and Therapeutics, which shall select for the overburdened student and young practitioner the more important and immediately applicable of the details which properly find a place in the larger and encyclopedic treatises.

The work undoubtedly sets forth some very sound doctrine. The author, in speaking of the many important additions that have been made to the resources of physicians, says, that notwithstanding these, and the really great improvements that have been made in the treatment of disease, it is still true that therapeutics progresses slowly and laboriously, assisted as it is by physiology, pathology, chemistry, and pharmacy. "No one," he continues, "even slightly familiar with its history can fail to recognize how considerable a share of its advance has been due to a more general recognition of the recuperative powers of nature, of the harmfulness of many kinds of active medication, and the inefficacy of others, and, as a consequence of this clearer view, a diminished use of drugs."

Dr. Edes, however, is not a non-believer in the efficacy of drugs, for he says, "Rational therapeutics is as strongly opposed on the one hand to over-medication, as on the other to nihilism, either avowed or disguised under a specious nomenclature which really represents nothing."

The work can be highly recommended as a text-book for students, and as a work of reference for medical practitioners who have constant need to refresh their memories as regards the properties of medicines; the indications calling for the employment of certain ones; and the diseases in which particular remedies are employed. In discussing therapeutic principles, and in describing drugs, the author has been very successful in maintaining a proper medium between being too concise and too copious. He sets forth

fully enough all that is necessary for the intelligent understanding of a subject, but he does it with as little verbiage as possible, and carefully avoids the discussion of unsettled questions. It is evidently the aim throughout the work to limit the instruction to established facts, presenting all, however, that are recognized up to the present time, so that the work may be regarded as presenting a fair exposition of the therapeutics and materia medica of the present time.

The author has also preserved, we think, a happy medium in exhibiting the truth in a clearer light than either the roseate hue of pure theory or the somber shadows thrown by the disappointment of unreasonable expectations.

The work will be found a very practical one, and, in that respect, will meet with the commendation of those physicians who are more anxious to learn what will cure a disease than to become familiar with theories in regard to its nature, causes, etc. Many pages have been written recounting the results of investigations in searching for morbid germs, bacilli, microbes, etc.; and as many more in discussing the subject whether these microscopical objects are the causes of disease or the consequences of them; but, while German pathologists are fond of such literature, the practical American doctor seeks works which will enlighten him as respects the successful treatment of the sick he is in attendance upon.

A PRACTICAL TREATISE ON MATERIA MEDICA AND THERAPEUTICS. By Roberts Bartholow, A. M., M. D., LL.D., Professor of Materia Medica, General Therapeutics and Hygiene in the Jefferson Medical College of Philadelphia; Physician to the Philadelphia Hospital, and Lecturer on Clinical Medicine in the same; Author of a Treatise on the Practice of Medicine; of a Treatise on Medical Electricity, etc. Sixth Edition, Revised and Enlarged. 8vo. Pp. 802. Cloth. New York: D. Appleton & Co.; Cincinnati: R. Clarke & Co. Price, \$5.00.

That Bartholow's *Treatise on Materia Medica and Therapeutics* has been a very popular work with medical students and physicians, is evident from the fact that it has reached a sixth edition, although it has not been many years since it was first issued—we believe, ten.

As respects the therapeutic applications of remedies, the

author has, as far as practical, based them on the physiological actions. Although convinced that the most certain acquisitions to therapeutical knowledge must come through the physiological method, he is equally clear that well established, empirical facts should not be omitted, even if they are not explicable by any of the known physiological properties of the remedies under discussion.

The author, at the outset, describes the modes in which medicines are introduced into the organism. In the next place he treats of the actions and uses of remedial agents. Under this heading are classed (1) those used to promote the constructive tissue metamorphosis, as tonics; (2) those used to increase the retrograde tissue metamorphosis, as alteratives; (3) those used to destroy microbes or miasmatic germs, and to prevent or arrest septic processes, as antiseptics; (4) those used to modify the functions of organs, as of the nervous system, of the gastro-intestinal canal, of the genito-urinary organs. After these are considered topical remedies, such as rubefacients, epispastics, escharotics, etc.

The sixth edition contains much new matter. The author, in order to keep the work fully abreast of the times, has considered in this edition the new remedies which have been brought to the attention of physicians through the domain of pharmacology and by the increased contributions of chemistry. An attentive examination of the work takes away any surprise that may have existed in consequence of the work having become so popular when, previous to its publication, there were already before the profession such meritorious works as those of Prof. Stillé and Prof. H. B. Wood. It will be found to be a very practical work—informing the student just what the remedies do; in what diseases they are useful. It is a scientific work; laying down principles and establishing theories; but, still, it does not discard empiricism; it does not hesitate to advise the use of a remedy for the purpose of bringing about a cure, when no theory can be advanced to explain the cure. This is a practical age, in which the effort is by every one to bring about results in the most direct manner possible; and no one is more eager to accomplish this than the physician. Prof. Bartholow's treatise has, consequently, obtained a high rank as a text-book with students and physicians.

SIX HUNDRED MEDICAL DON'TS; OR, THE PHYSICIAN'S UTILITY ENHANCED. By Ferd. C. Valentine, M.D., Ex-

Surgeon-General Army of Honduras; Member of the Medical Society of the County of New York; of the Medico-Legal Society; of the Faculties of Medicine and Pharmacy of the Republics of Guatemala and Honduras; Author of "Central American Medical Curiosities," etc. 16mo. Pp. 144. New York: G. W. Dillingham; Cincinnati: Robert Clarke & Co. Price, 75 cts.

This little work, although a *queer* one, contains a very large amount of very useful information, and information of a kind that is calculated to be beneficial to the laity. We feel sure that if physicians would advise their patrons to procure and study it, they would render them a great service and lighten their own labors without any danger of rendering them less profitable.

As stated upon the title-page, the work contains six hundred Don'ts. The 38th Don't reads as follows: "Don't deem frivolous the desire so prevalent with physicians to introduce refined tastes and amusements; they tend to prevent a patient from pondering upon and thus intensifying his ailments."

The 39th Don't reads thus: "Don't fail to take heed by the valuable lessons taught us by modern surgery. If your doctor is not a believer in antiseptic remedies, he will acknowledge that the scrupulous cleanliness, incidental to the use of antiseptics, has done much toward obviating the evil results that so often formerly attended surgical operations and serious wounds."

44th Don't: "Don't drink whisky in cold weather; alcohol lowers the body temperature."

593d Don't: "Don't torture your liver with blue-mass, podophyllin, or other so-called chologogues, unless your physician decides that they are necessary."

595th Don't: "Don't believe that any drugs will travel through the blood and pick out poisonous particles therefrom."

The purpose of the work is, while giving such information as can be conveyed to the layman, to establish a better relationship between physicians and such patients who do not properly view the profession.

THE NEW YORK ACADEMY OF MEDICINE recently received a donation from Mrs. John Jacob Astor of \$1,000. The gift was made through Dr. Fordyce Barker, and is to be used for the library and building funds.

Editorial.

FROM UNDER THE CLOUD.—Have any of the readers of the MEDICAL NEWS ever read a book written by a person who had once been insane, and had spent several years of his life in a lunatic asylum? We presume that a very large majority will answer in the negative. In fact, as we write, we can not call to mind but one or two authors who had been *non compos mentis* before engaging in literary work.

But the question may be asked by some physicians, Can a person who has been insane write a connected work that would be readable and capable of interesting and instructing intelligent persons generally, in consequence of the ability with which its subjects are treated apart from the fact that it had emanated from a brain that had once been diseased? It is stated by some alienists that though an insane person may recover so as no longer to be out of his mind—no longer to have hallucinations, illusions or delusions—and become competent, apparently, to a considerable extent to attend to the business of life, and resume his place as a member of society, yet he will never be the same person, mentally, as he was previous to the attack of insanity; that not only will the mind have lost its elasticity, which it was wont to have, but that the feelings—the whole character of the individual—will be found to have changed.

Insanity is caused by disease of the brain. The conditions existing in the brain have for their result intelligence. Chemical action going on under certain conditions or circumstances originates a force we call electricity. So a mental force is the consequence of the conditions which exist in the brain. When the brain becomes disordered from any cause, the mind, of course, becomes affected, and its aberration will continue so long as the disorder of the brain lasts. If the structure of the brain should never recover its normal tone or state, the mind would never regain its former power and elasticity, though it might “run” regularly along without any *jarring* or discordant action, like the electrical current, which, though it has had a cell from the battery taken away, or the chemical fluid weakened, still operates, but with diminished force. But if the brain, like the lungs or liver, after having been diseased, should regain again a perfectly normal condition, its functions would certainly be restored not only in their entirety,

but in their full power. That such would be the result, we can not conclude otherwise, for it is a recognized axiom that the same causes are always followed by the same results. Structure, however, is frequently permanently impaired after having been diseased, and it is probable that such is the case in the majority of instances. There is reason to believe that, when the lungs have suffered an attack of pneumonia, they are never as good as they were before, although it is said that they have recovered; so, when there has been a dislocation of a joint, the joint is seldom ever as strong as it was previously—a permanent impairment of function following. But, if any structure, after having been diseased, regains a perfectly normal state, its functions, whatever they are, are, without doubt, fully restored—the mind regaining its full vigor so soon as the brain has fully acquired its normal state.

We have made this rather lengthy digression in order to show that there can exist no cause why a person who has once been insane, can not, after *complete recovery*, write a book capable of interesting and instructing the readers of it. If such a one can not, it will readily be understood that we hold that the reason is to be ascribed to the fact that they never possessed the necessary qualifications—*i. e.*, they either never possessed sufficient intellectual ability, or never had the literary training essential for such work. If ability for authorship existed previous to an attack of insanity, it will be found intact subsequently, unless the delicate cerebral structure has suffered permanent injury, which no physician can admit to be necessary.

“Well,” our readers may say, “after this lengthy disquisition on insanity we would be pleased to have explained the meaning of the heading of the article—‘From under the Cloud.’” In explanation we will state that the words constitute an expression of Dr. Orpheus Everts, Superintendent of the Cincinnati Sanitarium, at College Hill, near Cincinnati; but at the time he made the expression he was Superintendent of the State Insane Asylum of Indiana. A lady, an inmate of the latter institution, was one day standing, as she frequently did, at a window, sunken in the deepest melancholy, gazing at she knew not what, when she was aroused by Dr. Everts’ voice asking: “Are you drinking in the beauties of nature?” She replied: “I am not thinking at all whether the sun is shining or clouded; but I remember when I delighted in the loveliness of nature.”

"And you will again," he answered. "Surely as the sun comes from behind the cloud, just so *surely* will you come *from under the cloud* now enveloping you." And the lady did come *from under the cloud* then enveloping her, and which enveloped her for nearly ten years. She not only came from under the cloud, but has written a book since she was released—a book which is as entertaining as are any of Dickens' tales, and everybody who has read them, and pretty much everybody has, knows that they are intensely interesting. The expression of Dr. Everts she very appropriately adopted as the title of her book.

The book is a duodecimo of two hundred pages, printed by Robert Clarke & Co., of Cincinnati. In the way of a frontispiece it has a finely executed phototype of the authoress, Mrs. Anna Agnew, the sister of a late eminent physician.

Dr. Hester had charge when Mrs. Agnew spent her first night in the asylum, which she says was a dreadful night to her, although her attendants were very considerate to her. "I was placed," she states, "in a sleeping-room in the receiving ward together with *three other* patients, and immediately asked permission of Dr. Hester to sleep in a room by myself, since I was *afraid of insane people*. This request he refused, assuring me that *I* had no more reason to be afraid of *those three other insane women* than *they* had to be *afraid of me*, a fact I certainly had not thought of before."

Mrs. A. states that the *insane people* were a study to her—an interesting study, too. And the same time, she says, "I, *too*, was treated as an insane woman, a kindness hitherto not shown me, Dr. Hester being the first person *kind enough* to say to me, in answer to my question, 'Am I Insane?' 'Yes, *madam*, and *very insane*, too! so much so that I very greatly doubt your recovery, and I must say further, that had not the mistaken kindness of your friends *kept you out of this place* almost three years, you might now be at home, a well woman, with your children. But we intend to benefit you all we can, and our particular hope for you, is the restraint of this place.'"

By the way, our readers will call to mind that we have not unfrequently recommended, in the editorial department of the MEDICAL NEWS, the early sending of those attacked with insanity to a well-organized insane asylum. We have maintained that the kind but firm restraint imposed in such an institution always exerts the most salutary influence

upon those whose minds are disordered. When physician to a lunatic asylum, it seemed to us that restraint of the kind which we describe, together with being surrounded by those who were strangers, was one of the most efficient means in the cure of those who were brought to the institution to be treated for insanity. The insane hold in contempt—have no respect for—the authority of members of their own family, and of friends and acquaintances generally, while they nearly always have for those who are strangers to them. Besides, outside of an asylum there are not to be had those means for firmly, but still kindly, enforcing obedience to those requirements which are most essential for the patient's good. Mrs. Agnew, in her book, urges the necessity of immediate transference to an asylum of one attacked with insanity. In fact, she seems to be of opinion that there is but little hope for a cure outside of one. On page thirty-eight she relates a conversation she held with Dr. Everts, who had just expressed his belief that she would recover. "Upon what ground," she said, "do you base your hope for me?" "Principally," he replied, "upon the restraint you are under in this place." "Restraint; I am under no restraint," she said, supposing he referred to the numerous mechanical and other restraints in use then (since abolished entirely) in the asylum. And he answered, "Are you not? Look at that window. Could you break one of those bars? See those locked doors. For the first time, probably, in your life, your will is brought directly in opposition to stronger wills. Refuse to go into the dining-room at the ringing of the bell, since you are not hungry or do not care to eat, strong arms will carry you to the table and compel you to swallow food. Say you can not sleep, therefore will not go to bed. *You will go.* And if need be, you will be strapped upon the bed, and the key turned against you. Are you not restrained? Indeed, to one of your temperament, I should imagine you were under fearful restraint."

But want of space and time will not permit us to quote further from the work. In conclusion, however, we take pleasure in heartily recommending an attentive perusal of the work to our medical friends. They will find in it much interesting information in regard to the treatment of the insane; and we have no doubt that, with us, they will consider it a valuable contribution to that part of medical literature which has to do with insanity. But while by the

physician it may be regarded a scientific work written by an educated and highly intelligent woman, it may also be considered a most interesting contribution to general literature.

MEDICAL ETHICS.—We had intended to have prepared an article on *Medical Ethics* for this number of the MEDICAL NEWS, but our time has been so very greatly occupied with many duties that we have been compelled to postpone it. It has seemed to us for some time that many in the profession are losing sight of the fact that there is a written CODE OF ETHICS governing gentlemen of the profession in their conduct to one another and to their patients, and that they should be reminded of the fact. Brawlers have for so long a time been filling the air with their noise, declaring that medical *gentlemen* need no written code, for that there exists an unwritten code to which all high-toned men acknowledge fealty, that we think it is high time some protest should be made. It is possible even the very elect may be deceived, and so it has seemed to us that there is danger that some physicians may be led to think that the written Code, which the past generation left us, is only worthy of contempt by the present. Of course there exists a system or code of morals acknowledged by all men, but the fact that it is unwritten has made the necessity that there should be an understanding what is taught by it, otherwise there might spring up honest differences of opinion as regards its teachings. The written Code of Medical Ethics adopted by the American Medical Association thirty-five years ago, constitutes an exposition of the views of the best men of the profession, drawn from the great unwritten code, of the relations which should exist among medical men and the duties they owe to their patients. When any member of the profession, therefore, endeavors to cast odium upon this Code, we think he ought to be strongly suspected of having sinister motives.

A medical dude of New York or Philadelphia, we forget which, recently visited Cincinnati. He was so filled with conceit—had such an exalted opinion of himself—that he was an object of ridicule and contempt. This personage undoubtedly was not even aware of the fact that there existed a Code of Ethics. Under the circumstances he could not be held responsible for any violations of medical ethics. A man who is ignorant of doing wrong should not

be held responsible. Of course, anything we might have to say on the Code of Ethics would not be prompted by this fellow or by anything he did. After having made something of a sensation among some old ladies, who admired his bowing and quirking and scented hair, he returned to his home obscurity where he belonged.

DEATH OF DR. EDWARD PRITZL.—We learn from the *Annals of Gynecology* that this gentleman, the accomplished chief-assistant of Prof. C. Braun's Clinic in Vienna, has recently died. It is said that, in full health and strength, he was cut off in the flower of his manhood, and died in the discharge of his duty.

He acquired septic infection from a patient with puerperal fever, and erysipelas of the face ensued, which extended to the lungs and terminated his life after a short and painful illness. His industry and talent promised a brilliant future, and his loss will be widely felt. His death, as the editor of the *Annals* says, furnishes another example of the risks which physicians run in the discharge of their duty, and of the terrible virulence of the septic poison which is lying in wait for them, as well as for their patients.

CONDITION OF THE CROWN PRINCE.—The latest issue of the *Lancet* says that Sir Morell Mackenzie continues to receive highly satisfactory reports regarding the present condition of the Crown Prince of Germany. The slight enlargement of the left submaxillary gland, which took place at the end of October, was followed by a similar swelling on the opposite side after the occurrence of edema in the early part of November. Considerable diminution has taken place in both these swellings. Sir Morell Mackenzie considers that in view of the fact that there has been no actual microscopic proof of the existence of cancer, the diminution in the size of these swellings is not without a certain degree of clinical importance.

PRIZES FOR ESSAYS.—The President of the New York Academy of Anthropology announces a prize of fifty dollars for the best original essay on any subject within the domain of Anthropology. The prize will be awarded by a commission to be named by the President of the Society. It is intended to make this prize open to all students of Anthropology throughout the world, though competitors will be

required to become either active, honorary, or corresponding members of the Society, which will be easy for them to do. The papers must be sent to the President of the Academy, Edward C. Mann, M. D., 128 Park Place, Brooklyn, N. Y.

The Medico-legal Society of New York announces the following prizes for original essays (to be forwarded on or before April 1, 1888,) on any subject within the domain of medical jurisprudence or forensic medicine:

1. For the best essay—one hundred dollars, to be known as the Elliott F. Shepard Prize.
2. For the second best essay—seventy-five dollars.
3. For the third best essay—fifty dollars.

Competition will be limited to all members of the Society at the time the award is made. It is intended to make these prizes open to all students of forensic medicine throughout the world, as all competitors may apply for membership in the Society.

THE CONSULTANTS AT SAN REMO.—The *British Medical Journal* describes the specialists called to meet in the case of the Crown Prince as follows:

The German specialists who have been called in to advise with Sir Morell Mackenzie as to the treatment of the Crown Prince of Germany in the critical phase on which his illness seems now to be entering are all well known to laryngologists throughout the world, though their names may not be familiar in this country. Dr. L. von Schrötter, who is Professor Extraordinary of Laryngology and Internal Medicine in the University of Vienna, is the leading teacher of throat diseases in that great school, and his reputation throughout Germany is of the highest. He was one of the pioneers of laryngology, and his name would certainly be always one of the first mentioned when the question of calling in further advice arose. Dr. Hermann Krause, though comparatively a young man as age is counted in professional life, is a distinguished teacher in the University of Berlin, and stands high in his special line. Dr. M. Schmidt, of Frankfort-on-the-Main, though not perhaps quite so well known as his two colleagues, is a sound and experienced specialist, and has, moreover, the great recommendation in the present case of having already seen and treated the illustrious patient.

SHALL THE DOCTOR MARRY RICHES?—This important question is being discussed by some of our contemporaries with such earnestness as to suggest that the matter is becoming a personal issue with some representatives of medical journalism. Dr. N. Senn (will not our distinguished *confrère* fill out his first name and put those ever-recurrent "N's" in the minority?) has written that it is a fashion in Europe among medical men to marry rich wives, and he thinks that marrying wealth brings social obligations antagonistic to science. In this he is right; yet, on the other hand, for grinding, uncompromising antagonism to science there is nothing that goes far ahead of poverty. The scientific buds nipped by the frost of matrimonial multiple-millionairism are few compared with those whose bloom chill penury and a large family repress. The worldly-wisest of Americans, Benjamin Franklin, broke off his first engagement because the parents would not mortgage their house to give the daughter a modest dowry. And though the prudent Franklin subsequently married a poor girl, he did so with some misgivings, and left the impression that a dowry was the proper thing for the wise and good to expect. Looking at the matter in the same cold and worldly light, we should express the opinion that the doctor ought to marry neither poverty nor riches; but elect to love some charming woman whose resources would lessen the worry incident to a large family and a small practice. However, it is useless to advise in matters where sentiment is bound to rule.—*Record*.

PHYSICIANS' REGISTERS.—Our readers should notice the advertisement, begun in this number of the MEDICAL NEWS, of the Registers of Messrs. Henry Bernd & Co. They are for the purpose of physicians making charges for their services. The NEWS of next month will contain a cut exhibiting the arrangement of the works, and the method of making charges. Those physicians who have been using one or the other of the Registers, speak of them in the highest terms as being the best adapted for their purposes of any work with which they have ever met. A work that will enable a physician to so enter all debit and credit accounts in such a manner—very simple—as to allow him to state the indebtedness of a patron at a glance will save many times its price every year.



